FCC TEST REPORT (15.247)

REPORT NO.: RF951114L02

MODEL NO.: WPC600N

RECEIVED: Nov. 14, 2006

TESTED: Nov. 14, 2006 ~ Apr. 23, 2007

ISSUED: Jul. 16, 2007

APPLICANT: Cisco-Linksys LLC

ADDRESS: 121 Theory Drive Irvine, CA 92617, USA

ISSUED BY: Advance Data Technology Corporation

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang 244, Taipei Hsien, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd., Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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1. CERTIFICATION

PRODUCT: Dual Band Wireless-N Notebook Adapter
MODEL: WPC600N
BRAND: Linksys
APPLICANT: Cisco-Linksys LLC
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Nov. 14, 2006 ~ Apr. 23, 2007
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.4-2003

The above equipment (Model: WPC600N) has been tested by **Advance Data Technology Corporation,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Rennie Wang , **DATE:** Jul. 16, 2007
Rennie Wang / Senior Specialist

TECHNICAL ACCEPTANCE : Long Chen , **DATE:** Jul. 16, 2007
Responsible for RF
Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE:** Jul. 16, 2007
Gary Chang / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -10.72dB at 0.170MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is –1.02dB at 2483.5MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz ~ 30MHz	2.44dB
Radiated emissions	30MHz ~ 200MHz	3.62dB
	200MHz ~1000MHz	3.64dB
	1GHz ~ 18GHz	2.26dB
	18GHz ~ 40GHz	1.94dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Dual Band Wireless-N Notebook Adapter
MODEL NO.	WPC600N
FCC ID	Q87-WPC600NV11
POWER SUPPLY	3.3Vdc from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps Draft 802.11n (20MHz): 130.0/ 117.0/ 104.0/ 78.0/ 52.0/ 39.0/ 26.0/ 13.0/ 65.0/ 58.5/ 52.0/ 29.0/ 26.0/ 19.5/ 13.0/ 6.5Mbps Draft 802.11n (40MHz): 270.0/ 243.0/ 216.0/ 162.0/ 108.0/ 81.0/ 54.0/ 27.0 /135.0/ 121.5/ 108.0/ 81.0/ 54.0/ 40.5/ 27.0/ 13.5Mbps
FREQUENCY RANGE	2.4GHz: 2400 ~ 2483.5MHz 5.0GHz: 5150 ~ 5350MHz, 5470 ~ 5725MHz, 5725 ~ 5850MHz
NUMBER OF CHANNEL	2.4GHz: 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) 5.0GHz: 5150 ~ 5350MHz, 5470 ~ 5725MHz: 19 for 802.11a, draft 802.11n (20MHz) 9 for draft 802.11n (40MHz) 5725 ~ 5850MHz: 5 for 802.11a, draft 802.11n (20MHz) 2 for draft 802.11n (40MHz)
OUTPUT POWER	162.192mW for 2400 ~ 2483.5MHz 47.909mW for 5150 ~ 5350MHz 45.186mW for 5470 ~ 5725MHz 81.731mW for 5725 ~ 5850MHz
ANTENNA TYPE	2.4GHz: PIFA antenna with 2.7dBi gain 5.0GHz: PIFA antenna with 1.2dBi gain
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. This report only covered frequency range: 2400 ~ 2483.5MHz and 5725 ~ 5850MHz. Frequency range: 5150 ~ 5350MHz, 5470 ~ 5725MHz showed in another report, which report no. is RF951114L02-2.
2. The EUT incorporates a MIMO function. Physically, the card provides two completed transmitters and three receivers.
3. The EUT is 2 * 3 spatial MIMO (2Tx & 3Rx) without beam forming function.
4. When the EUT operating in 802.11b, 802.11g, 802.11a, the software operation, which is defined by manufacturer, only set single Tx.
5. When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, only set 0 ~ 15 of “MCS” (MCS: Modulation and Coding Schemes) for dual Tx.
6. The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g, 802.11a products.
7. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 270Mbps.
8. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

FOR 2.4GHz:

11 channels are provided for 802.11b, 802.11g, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

7 channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

FOR 5.0GHz (5725 ~ 5850MHz):

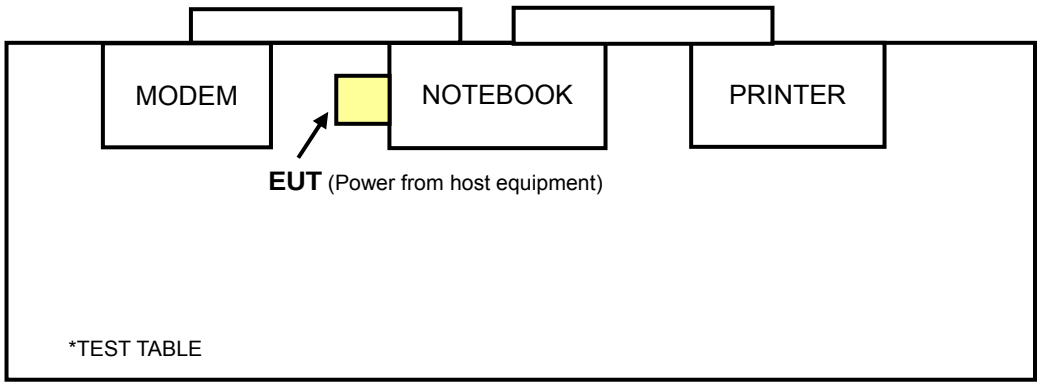
5 channels are provided for 802.11a, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	5745MHz	4	5805MHz
2	5765MHz	5	5825MHz
3	5785MHz		

2 channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	5755MHz	2	5795MHz

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

FOR 2.4GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE<1G	RE≥1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE<1G:** Radiated Emission below 1GHz

RE≥1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	Dual

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11g	1 to 11	1	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	13.5	Dual

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0	Single
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	Dual

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11b	1 to 11	1, 11	DSSS	DBPSK	1.0	Single
802.11g	1 to 11	1, 11	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5	Dual

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0	Single
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	Dual

FOR 5.0GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE<1G	RE≥1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE<1G:** Radiated Emission below 1GHz

RE≥1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11a	1 to 5	1	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 5	1	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 2	1	OFDM	BPSK	13.5	Dual

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11a	1 to 5	1	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 5	1	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 2	1	OFDM	BPSK	13.5	Dual

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 5	1, 3, 5	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 2	1, 2	OFDM	BPSK	13.5	Dual

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11a	1 to 5	1, 5	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 5	1, 5	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 2	1, 2	OFDM	BPSK	13.5	Dual

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11a	1 to 5	1, 3, 5	OFDM	BPSK	6.0	Single
Draft 802.11n (20MHz)	1 to 5	1, 3, 5	OFDM	BPSK	6.5	Dual
Draft 802.11n (40MHz)	1 to 2	1, 2	OFDM	BPSK	13.5	Dual

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)
ANSI C63.4-2003

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	16484462992	E2K24CLNS
2	PRINTER	EPSON	LQ-300+	DCGY054147	FCC DoC Approved
3	MODEM	ACEEX	1414V/3	0401008269	IFAXDM1414

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.8 m shielded cable without core
3	1.8 m shielded cable without core

NOTE: All power cords of the above support units are non shielded (1.8m).

4. TEST TYPES AND RESULTS (FOR 2.4GHz)

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Sep. 25, 2007
RF signal cable Woken	5D-FB	Cable-HYCO3-01	Jan. 06, 2008
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 08, 2008
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 16, 2008
Software ADT	ADT_Cond_V3	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

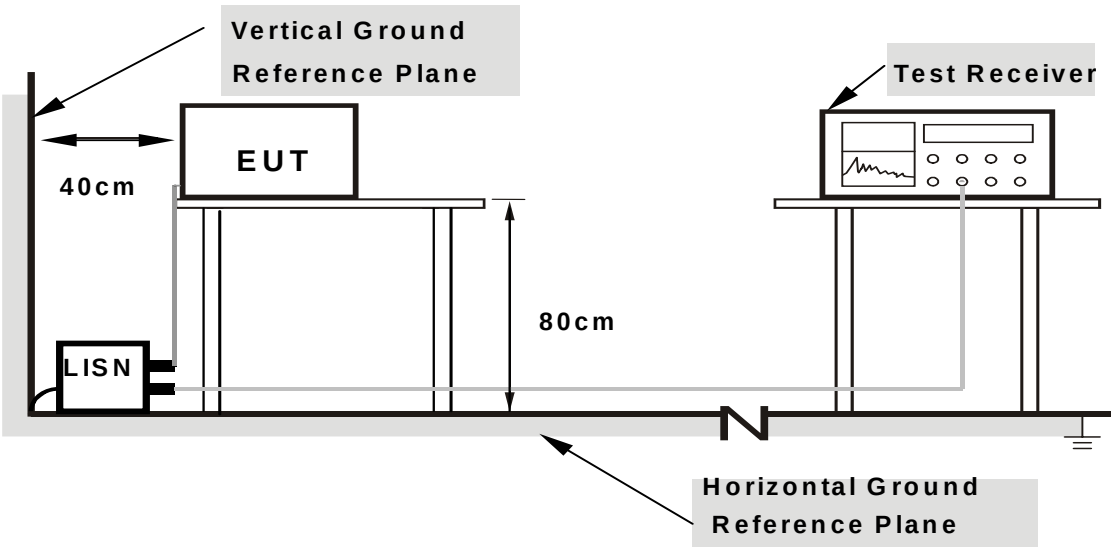
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

a. Plugged the EUT into a notebook and placed on a testing table.

b. The notebook ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.

c. The necessary accessories enable the system in full functions.

4.1.7 TEST RESULTS

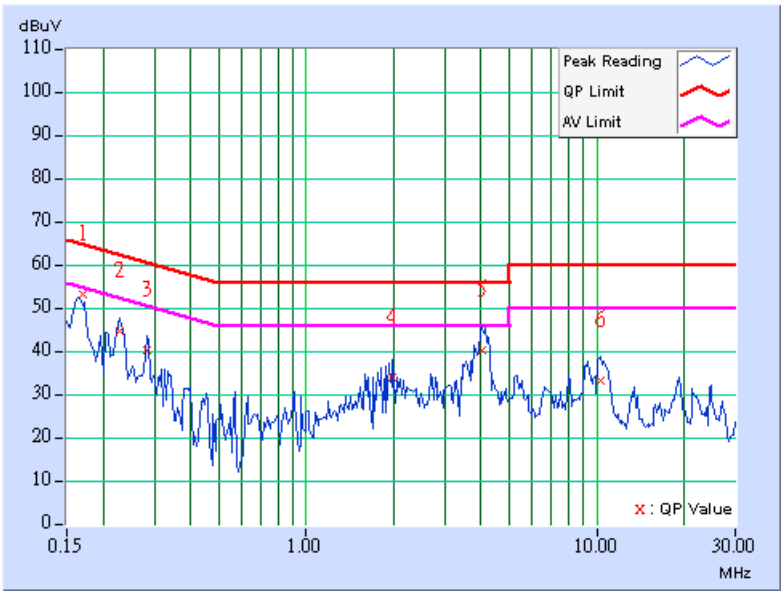
CONDUCTED WORST-CASE DATA: 802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.169	0.10	52.88	-	52.98	-	64.99	54.99	-12.01	-
2	0.228	0.10	44.36	-	44.46	-	62.52	52.52	-18.06	-
3	0.283	0.10	39.98	-	40.08	-	60.73	50.73	-20.65	-
4	1.988	0.22	33.84	-	34.06	-	56.00	46.00	-21.94	-
5	4.031	0.28	40.19	-	40.47	-	56.00	46.00	-15.53	-
6	10.270	0.34	32.83	-	33.17	-	60.00	50.00	-26.83	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

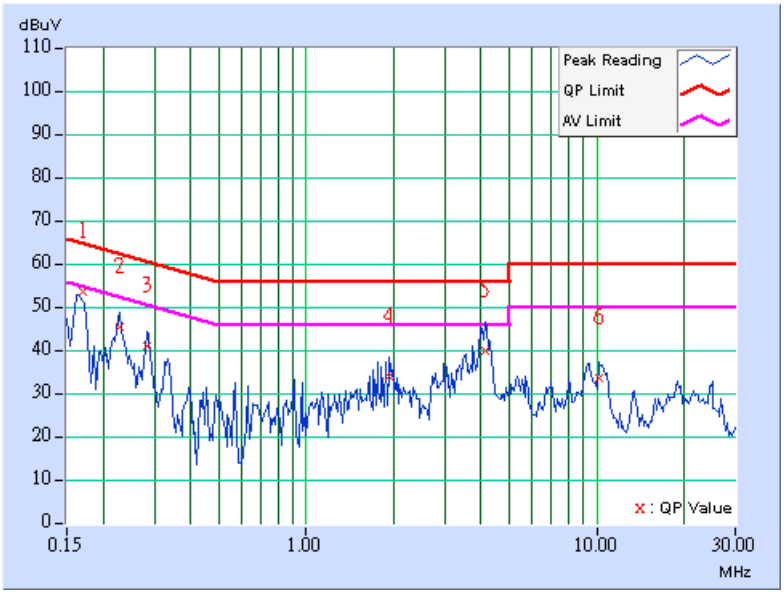


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.169	0.10	53.28	-	53.38	-	64.99	54.99	-11.61	-
2	0.228	0.10	45.08	-	45.18	-	62.52	52.52	-17.34	-
3	0.283	0.10	40.63	-	40.73	-	60.73	50.73	-20.00	-
4	1.934	0.22	33.69	-	33.91	-	56.00	46.00	-22.09	-
5	4.148	0.28	39.66	-	39.94	-	56.00	46.00	-16.06	-
6	10.168	0.43	33.24	-	33.67	-	60.00	50.00	-26.33	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

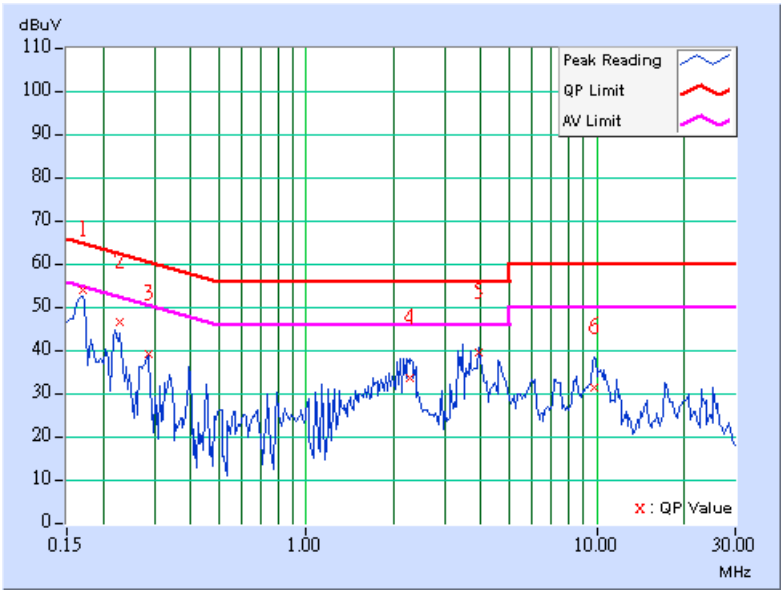


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	53.59	-	53.69	-	64.98	54.98	-11.29	-
2	0.228	0.10	46.40	-	46.50	-	62.52	52.52	-16.02	-
3	0.287	0.10	38.76	-	38.86	-	60.62	50.62	-21.76	-
4	2.270	0.23	33.47	-	33.70	-	56.00	46.00	-22.30	-
5	3.918	0.28	39.12	-	39.40	-	56.00	46.00	-16.60	-
6	9.758	0.33	31.08	-	31.41	-	60.00	50.00	-28.59	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

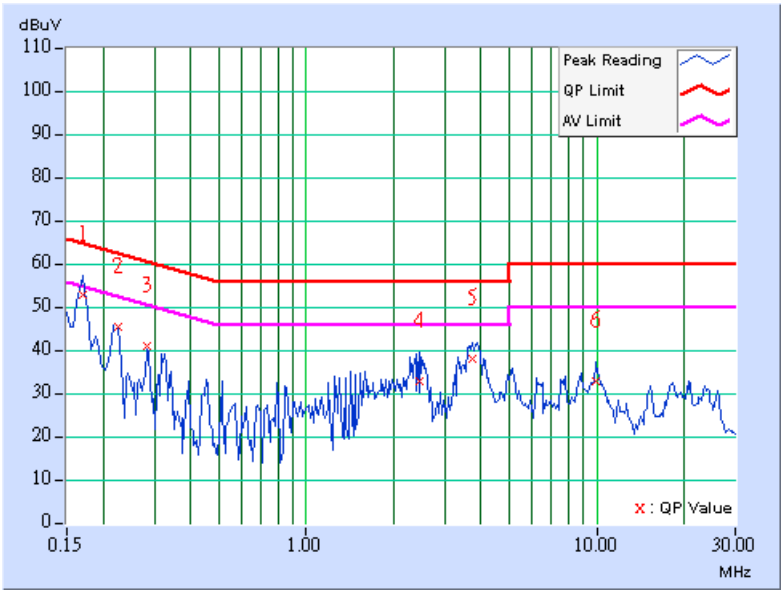


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	52.70	-	52.80	-	64.98	54.98	-12.18	-
2	0.227	0.10	45.18	-	45.28	-	62.57	52.57	-17.29	-
3	0.283	0.10	40.51	-	40.61	-	60.73	50.73	-20.12	-
4	2.441	0.23	32.38	-	32.61	-	56.00	46.00	-23.39	-
5	3.742	0.27	37.61	-	37.88	-	56.00	46.00	-18.12	-
6	9.988	0.43	32.50	-	32.93	-	60.00	50.00	-27.07	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

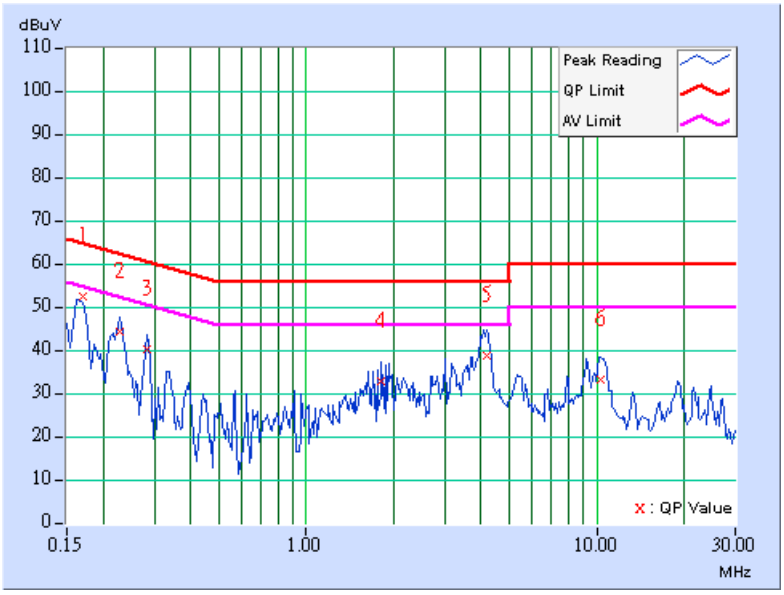


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.169	0.10	52.34	-	52.44	-	64.99	54.99	-12.55	-
2	0.228	0.10	44.00	-	44.10	-	62.52	52.52	-18.42	-
3	0.283	0.10	39.88	-	39.98	-	60.73	50.73	-20.75	-
4	1.816	0.20	32.77	-	32.97	-	56.00	46.00	-23.03	-
5	4.195	0.28	38.57	-	38.85	-	56.00	46.00	-17.15	-
6	10.371	0.34	32.94	-	33.28	-	60.00	50.00	-26.72	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

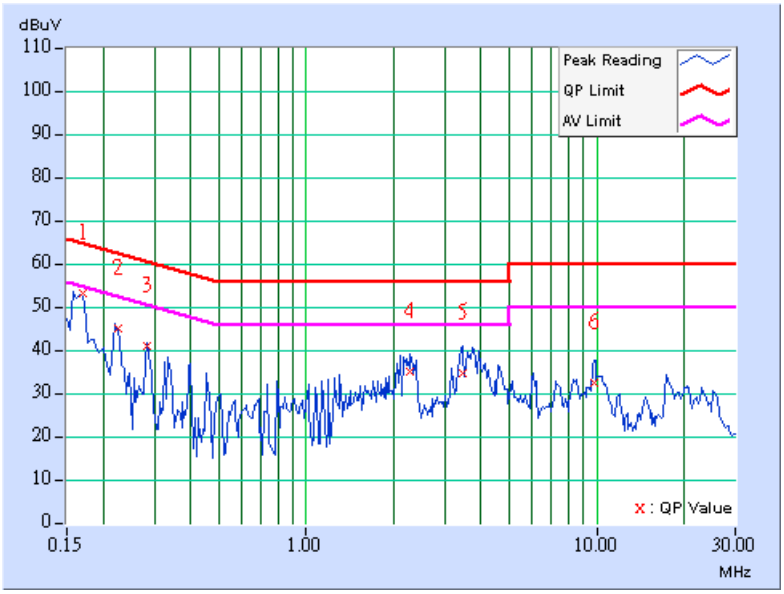


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.171	0.10	52.80	-	52.90	-	64.93	54.93	-12.03	-
2	0.225	0.10	44.92	-	45.02	-	62.62	52.62	-17.60	-
3	0.283	0.10	40.74	-	40.84	-	60.73	50.73	-19.89	-
4	2.270	0.23	34.69	-	34.92	-	56.00	46.00	-21.08	-
5	3.461	0.26	34.47	-	34.73	-	56.00	46.00	-21.27	-
6	9.761	0.42	32.22	-	32.64	-	60.00	50.00	-27.36	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.



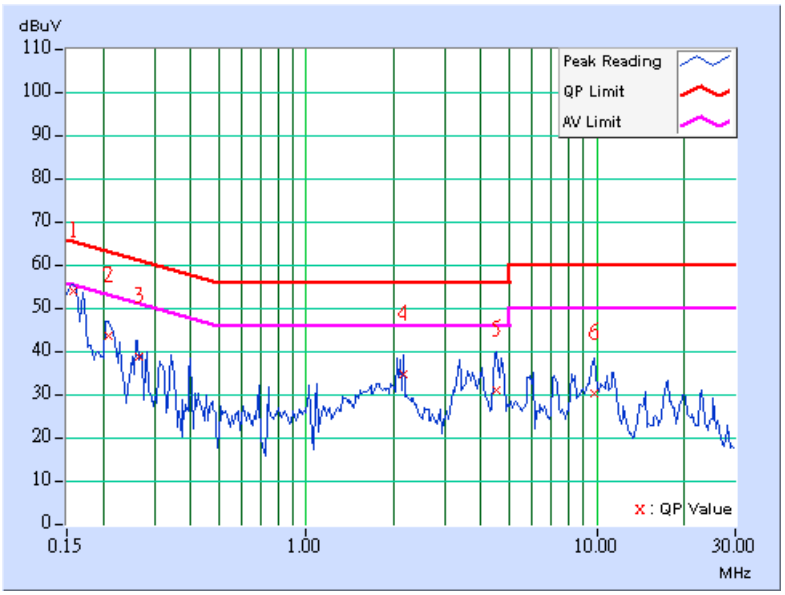
DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.158	0.10	53.85	-	53.95	-	65.57	55.57	-11.62	-
2	0.209	0.10	43.55	-	43.65	-	63.26	53.26	-19.61	-
3	0.264	0.10	38.58	-	38.68	-	61.30	51.30	-22.62	-
4	2.164	0.22	34.38	-	34.60	-	56.00	46.00	-21.40	-
5	4.500	0.28	30.96	-	31.24	-	56.00	46.00	-24.76	-
6	9.763	0.33	30.20	-	30.53	-	60.00	50.00	-29.47	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

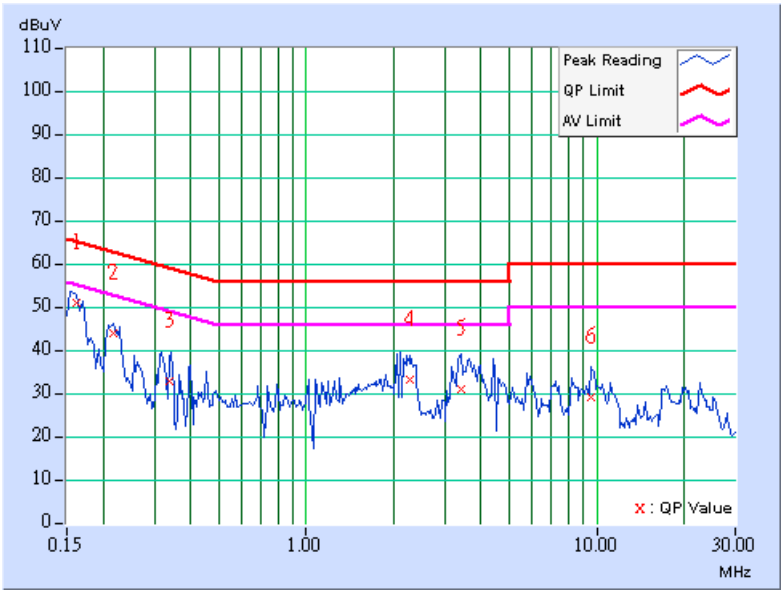


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.163	0.10	50.83	-	50.93	-	65.33	55.33	-14.40	-
2	0.216	0.10	43.57	-	43.67	-	62.96	52.96	-19.29	-
3	0.339	0.10	32.67	-	32.77	-	59.24	49.24	-26.47	-
4	2.270	0.23	32.86	-	33.09	-	56.00	46.00	-22.91	-
5	3.404	0.26	30.87	-	31.13	-	56.00	46.00	-24.87	-
6	9.598	0.42	28.96	-	29.38	-	60.00	50.00	-30.62	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

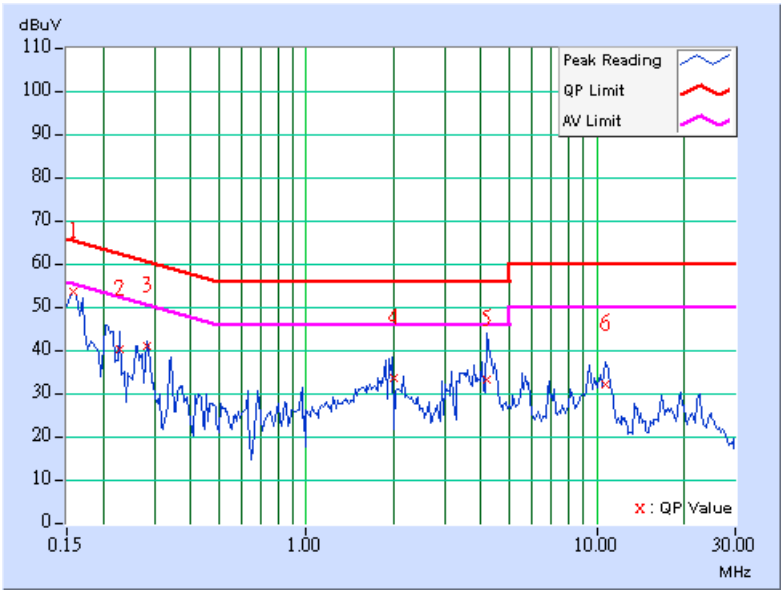


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.159	0.10	53.26	-	53.36	-	65.54	55.54	-12.18	-
2	0.229	0.10	40.17	-	40.27	-	62.49	52.49	-22.22	-
3	0.284	0.10	40.90	-	41.00	-	60.71	50.71	-19.71	-
4	1.995	0.22	33.19	-	33.41	-	56.00	46.00	-22.59	-
5	4.212	0.28	32.96	-	33.24	-	56.00	46.00	-22.76	-
6	10.780	0.35	31.77	-	32.12	-	60.00	50.00	-27.88	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

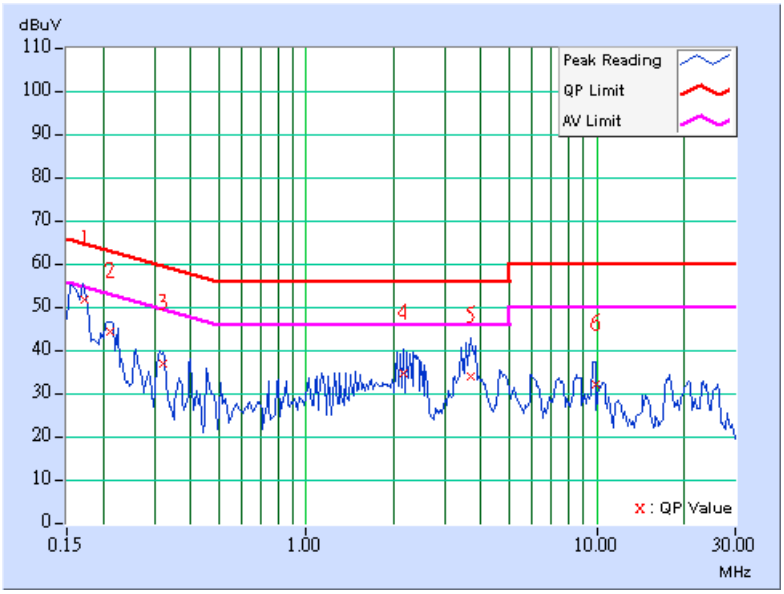


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.171	0.10	51.26	-	51.36	-	64.89	54.89	-13.53	-
2	0.213	0.10	43.88	-	43.98	-	63.10	53.10	-19.12	-
3	0.321	0.10	36.56	-	36.66	-	59.67	49.67	-23.01	-
4	2.162	0.22	34.27	-	34.49	-	56.00	46.00	-21.51	-
5	3.697	0.27	33.52	-	33.79	-	56.00	46.00	-22.21	-
6	9.899	0.43	31.96	-	32.39	-	60.00	50.00	-27.61	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

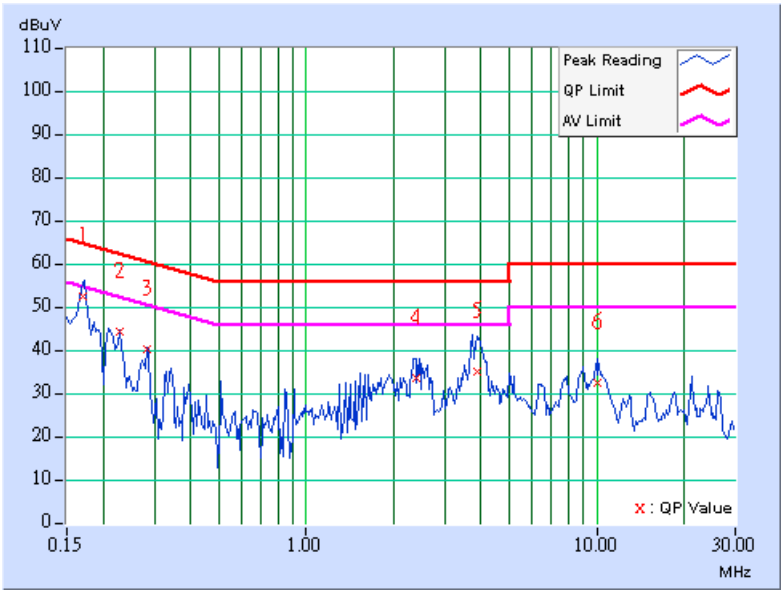


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	52.38	-	52.48	-	64.98	54.98	-12.50	-
2	0.228	0.10	44.02	-	44.12	-	62.52	52.52	-18.40	-
3	0.283	0.10	39.86	-	39.96	-	60.73	50.73	-20.77	-
4	2.383	0.23	33.32	-	33.55	-	56.00	46.00	-22.45	-
5	3.863	0.28	34.84	-	35.12	-	56.00	46.00	-20.88	-
6	10.047	0.33	32.41	-	32.74	-	60.00	50.00	-27.26	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

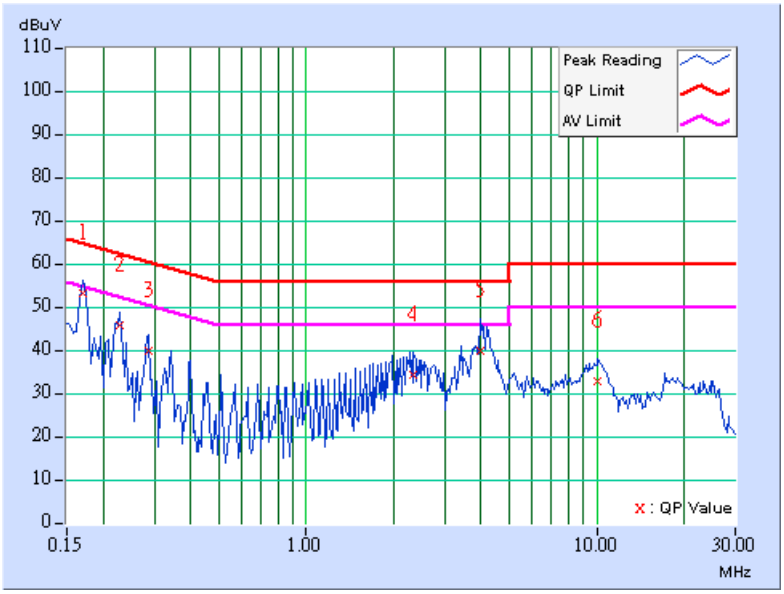


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	52.88	-	52.98	-	64.98	54.98	-12.00	-
2	0.228	0.10	45.49	-	45.59	-	62.52	52.52	-16.93	-
3	0.287	0.10	39.50	-	39.60	-	60.62	50.62	-21.02	-
4	2.328	0.23	34.13	-	34.36	-	56.00	46.00	-21.64	-
5	3.977	0.28	39.63	-	39.91	-	56.00	46.00	-16.09	-
6	10.109	0.43	32.61	-	33.04	-	60.00	50.00	-26.96	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.



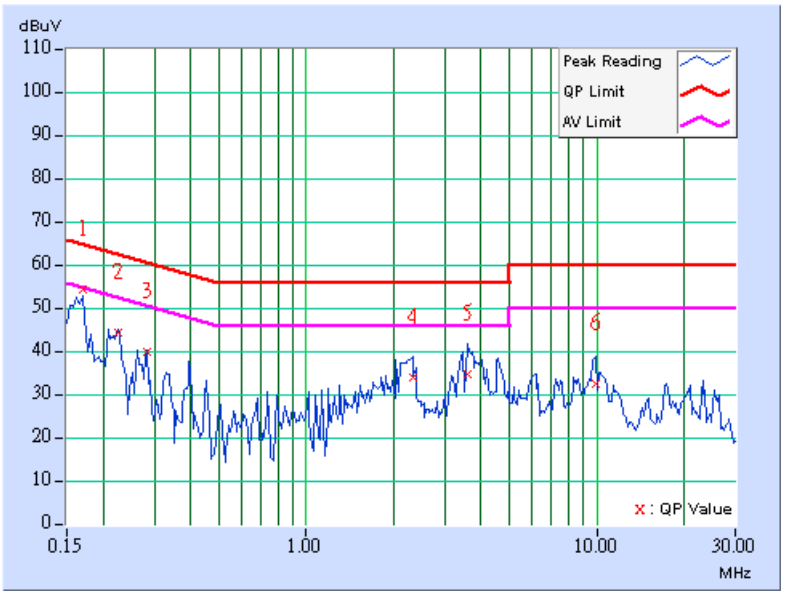
DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.170**	**0.10**	**54.16**	**-**	**54.26**	**-**	**64.98**	**54.98**	**-10.72**	**-**
2	0.225	0.10	44.30	-	44.40	-	62.61	52.61	-18.21	-
3	0.283	0.10	39.76	-	39.86	-	60.73	50.73	-20.87	-
4	2.324	0.23	33.79	-	34.02	-	56.00	46.00	-21.98	-
5	3.574	0.27	34.64	-	34.91	-	56.00	46.00	-21.09	-
6	9.918	0.33	32.27	-	32.60	-	60.00	50.00	-27.40	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

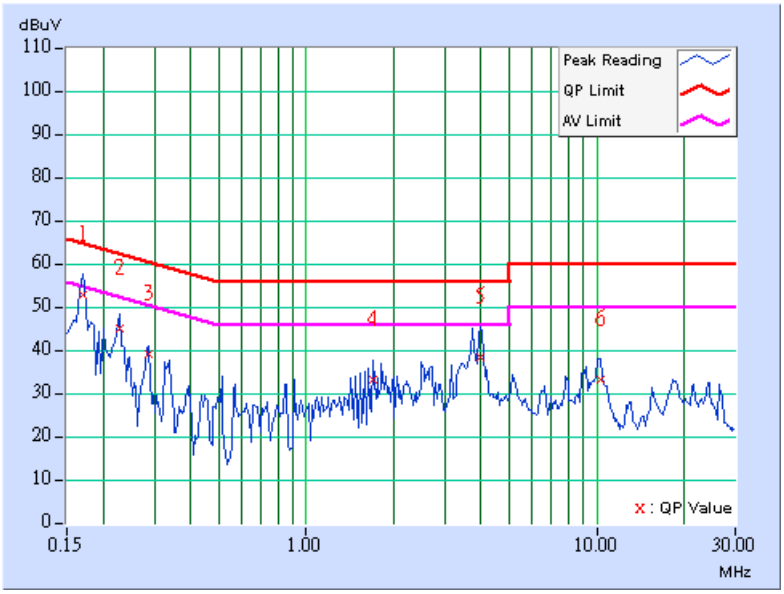


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	52.66	-	52.76	-	64.98	54.98	-12.22	-
2	0.228	0.10	44.88	-	44.98	-	62.52	52.52	-17.54	-
3	0.287	0.10	38.95	-	39.05	-	60.62	50.62	-21.57	-
4	1.699	0.22	32.89	-	33.11	-	56.00	46.00	-22.89	-
5	3.973	0.28	38.21	-	38.49	-	56.00	46.00	-17.51	-
6	10.261	0.43	32.73	-	33.16	-	60.00	50.00	-26.84	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

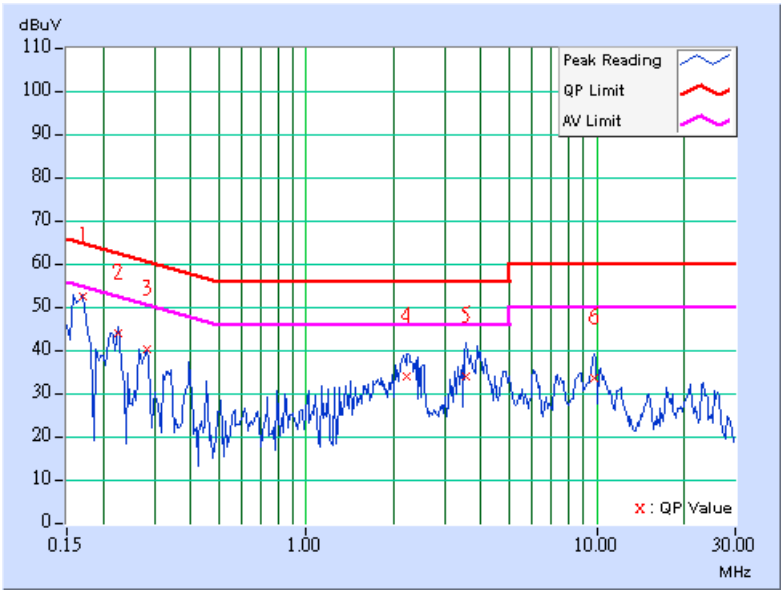


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	52.09	-	52.19	-	64.98	54.98	-12.79	-
2	0.224	0.10	43.59	-	43.69	-	62.66	52.66	-18.97	-
3	0.283	0.10	39.86	-	39.96	-	60.73	50.73	-20.77	-
4	2.211	0.23	33.76	-	33.99	-	56.00	46.00	-22.01	-
5	3.566	0.27	33.81	-	34.08	-	56.00	46.00	-21.92	-
6	9.857	0.33	33.56	-	33.89	-	60.00	50.00	-26.11	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

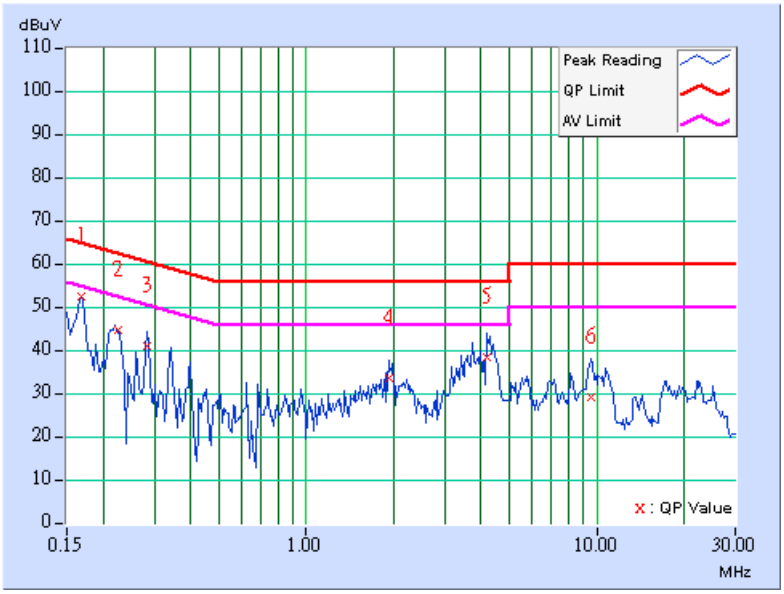


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.168	0.10	52.07	-	52.17	-	65.05	55.05	-12.88	-
2	0.224	0.10	44.33	-	44.43	-	62.66	52.66	-18.23	-
3	0.283	0.10	40.68	-	40.78	-	60.73	50.73	-19.95	-
4	1.930	0.22	33.32	-	33.54	-	56.00	46.00	-22.46	-
5	4.191	0.28	38.02	-	38.30	-	56.00	46.00	-17.70	-
6	9.586	0.42	28.95	-	29.37	-	60.00	50.00	-30.63	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

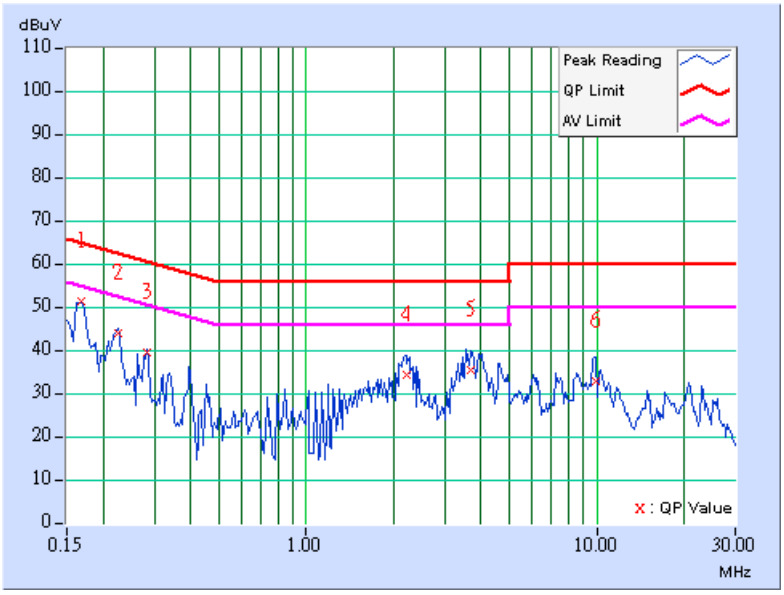


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.168	0.10	51.02	-	51.12	-	65.05	55.05	-13.93	-
2	0.224	0.10	43.60	-	43.70	-	62.66	52.66	-18.96	-
3	0.283	0.10	39.29	-	39.39	-	60.73	50.73	-21.34	-
4	2.207	0.23	34.14	-	34.37	-	56.00	46.00	-21.63	-
5	3.684	0.27	35.25	-	35.52	-	56.00	46.00	-20.48	-
6	9.969	0.33	32.45	-	32.78	-	60.00	50.00	-27.22	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

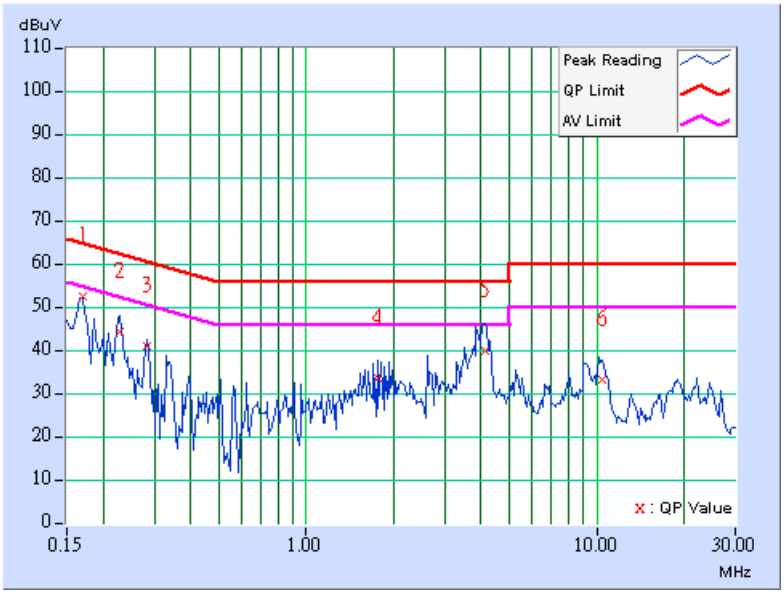


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	52.15	-	52.25	-	64.98	54.98	-12.73	-
2	0.228	0.10	44.18	-	44.28	-	62.52	52.52	-18.24	-
3	0.283	0.10	40.61	-	40.71	-	60.73	50.73	-20.02	-
4	1.754	0.22	33.10	-	33.32	-	56.00	46.00	-22.68	-
5	4.137	0.28	39.70	-	39.98	-	56.00	46.00	-16.02	-
6	10.422	0.43	32.86	-	33.29	-	60.00	50.00	-26.71	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESI7	838496/016	Dec. 29, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 01, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 04, 2008
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-405	Dec. 18, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 16, 2008
Preamplifier Agilent	8449B	3008A1960	Oct. 30, 2007
Preamplifier Agilent	8447D	2944A10631	Oct. 30, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	230128/4	Nov. 14, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	233233/4	Nov. 14, 2007
Software ADT.	ADT_Radiated_V7.6	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 4.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The IC Site Registration No. is IC3789B-4.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

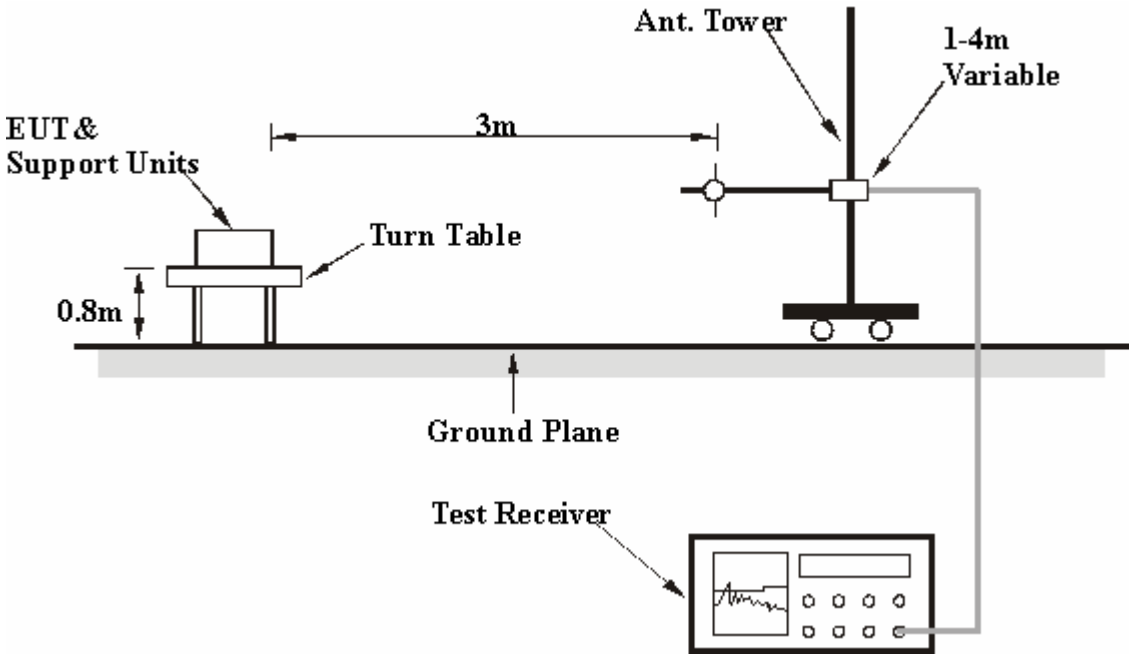
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA: 802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 991hPa	TESTED BY	Lori Chiu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	199.05	32.93 QP	43.50	-10.57	1.50 H	205	22.53	10.40
2	232.11	35.35 QP	46.00	-10.65	1.00 H	10	23.60	11.75
3	265.16	44.12 QP	46.00	-1.88	1.00 H	25	31.33	12.79
4	298.21	41.13 QP	46.00	-4.87	1.00 H	142	27.80	13.32
5	333.21	44.43 QP	46.00	-1.57	1.00 H	76	30.27	14.16
6	366.26	31.09 QP	46.00	-14.91	1.00 H	304	16.16	14.93
7	399.31	33.00 QP	46.00	-13.00	1.00 H	274	17.31	15.69
8	465.42	29.07 QP	46.00	-16.93	1.00 H	130	11.38	17.69
9	599.58	28.62 QP	46.00	-17.38	1.00 H	187	7.54	21.09
10	731.79	31.16 QP	46.00	-14.84	1.00 H	160	8.41	22.76
11	864.00	29.99 QP	46.00	-16.01	1.00 H	118	5.01	24.98

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.17	27.24 QP	43.50	-16.26	1.00 V	181	15.48	11.76
2	265.16	34.00 QP	46.00	-12.00	1.00 V	115	21.21	12.79
3	300.16	34.08 QP	46.00	-11.92	1.00 V	139	20.72	13.36
4	333.21	38.50 QP	46.00	-7.50	1.00 V	292	24.34	14.16
5	465.42	30.68 QP	46.00	-15.32	1.50 V	133	12.99	17.69
6	597.63	29.67 QP	46.00	-16.33	1.00 V	103	8.63	21.04
7	731.79	33.69 QP	46.00	-12.31	1.00 V	121	10.94	22.76
8	930.11	28.79 QP	46.00	-17.21	1.00 V	235	3.22	25.56
9	945.66	29.93 QP	46.00	-16.07	1.00 V	22	4.24	25.69

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 991hPa	TESTED BY	Long Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.17	36.61 QP	43.50	-6.89	2.50 H	280	24.85	11.76
2	199.05	35.53 QP	43.50	-7.97	1.50 H	52	25.13	10.40
3	232.11	39.45 QP	46.00	-6.55	1.50 H	64	27.70	11.75
4	265.16	43.44 QP	46.00	-2.56	1.50 H	214	30.66	12.79
5	298.21	39.67 QP	46.00	-6.33	1.00 H	61	26.34	13.32
6	331.26	44.89 QP	46.00	-1.11	1.00 H	79	30.78	14.11
7	397.37	38.44 QP	46.00	-7.56	1.00 H	259	22.79	15.65
8	465.42	44.18 QP	46.00	-1.82	1.50 H	217	26.49	17.69

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	265.16	40.03 QP	46.00	-5.97	1.50 V	139	27.25	12.79
2	331.26	44.82 QP	46.00	-1.18	2.00 V	316	30.71	14.11
3	366.26	33.63 QP	46.00	-12.37	2.00 V	31	18.70	14.93
4	399.31	34.78 QP	46.00	-11.22	1.50 V	103	19.08	15.69
5	465.42	37.46 QP	46.00	-8.54	1.00 V	172	19.77	17.69
6	864.00	34.78 QP	46.00	-11.22	1.00 V	217	9.81	24.98
7	947.60	33.74 QP	46.00	-12.26	1.00 V	295	8.03	25.71

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 991hPa	TESTED BY	Lori Chiu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	232.11	39.63 QP	46.00	-6.37	1.50 H	58	27.88	11.75
2	265.16	43.89 QP	46.00	-2.11	1.00 H	217	31.10	12.79
3	298.21	38.91 QP	46.00	-7.09	1.00 H	73	25.59	13.32
4	331.26	44.85 QP	46.00	-1.15	2.50 H	274	30.74	14.11
5	399.31	38.52 QP	46.00	-7.48	2.50 H	94	22.82	15.69
6	465.42	43.83 QP	46.00	-2.17	1.50 H	211	26.14	17.69
7	591.80	37.57 QP	46.00	-8.43	2.00 H	1	16.66	20.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	265.16	39.69 QP	46.00	-6.31	1.50 V	163	26.90	12.79
2	331.26	44.74 QP	46.00	-1.26	2.00 V	331	30.63	14.11
3	364.32	33.66 QP	46.00	-12.34	2.00 V	25	18.77	14.89
4	463.48	36.23 QP	46.00	-9.77	1.00 V	193	18.60	17.63
5	533.47	38.03 QP	46.00	-7.97	1.00 V	172	18.49	19.54
6	564.58	33.93 QP	46.00	-12.07	1.00 V	193	13.66	20.27
7	865.94	33.77 QP	46.00	-12.23	1.50 V	157	8.78	25.00
8	949.55	34.32 QP	46.00	-11.68	1.50 V	295	8.60	25.72

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

ABOVE 1GHz DATA: 802.11b DSSS MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	106.82 PK			1.38 H	278	74.64	32.18
2	*2412.00	103.70 AV			1.38 H	278	71.52	32.18
3	2387.00	61.67 PK	74.00	-12.33	1.40 H	272	29.58	32.09
4	2387.00	52.55 AV	54.00	-1.45	1.40 H	272	20.46	32.09
5	3216.00	50.34 PK	74.00	-23.66	1.00 H	268	15.96	34.38
6	3216.00	46.13 AV	54.00	-7.87	1.00 H	268	11.75	34.38
7	4824.00	50.83 PK	74.00	-23.17	1.19 H	263	12.20	38.63
8	4824.00	45.11 AV	54.00	-8.89	1.19 H	263	6.48	38.63
9	12060.00	62.51 PK	74.00	-11.49	1.37 H	261	11.70	50.81
10	12060.00	52.27 AV	54.00	-1.73	1.37 H	261	1.46	50.81

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	100.50 PK			1.18 V	320	68.32	32.18
2	*2412.00	97.41 AV			1.18 V	320	65.23	32.18
3	2387.00	58.88 PK	74.00	-15.12	1.18 V	320	26.79	32.09
4	2387.00	46.25 AV	54.00	-7.75	1.18 V	320	14.16	32.09
5	4824.00	53.08 PK	74.00	-20.92	1.09 V	277	14.45	38.63
6	4824.00	48.37 AV	54.00	-5.63	1.09 V	277	9.74	38.63

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.20 PK	74.00	-12.80	1.41 H	277	29.10	32.10
2	2390.00	50.23 AV	54.00	-3.77	1.41 H	277	18.13	32.10
3	*2437.00	106.60 PK			1.36 H	277	74.33	32.27
4	*2437.00	103.43 AV			1.36 H	277	71.16	32.27
5	3249.00	50.92 PK	74.00	-23.08	1.00 H	271	16.51	34.41
6	3249.00	46.89 AV	54.00	-7.11	1.00 H	271	12.48	34.41
7	4874.00	50.99 PK	74.00	-23.01	1.14 H	326	12.22	38.77
8	4874.00	43.97 AV	54.00	-10.03	1.14 H	326	5.20	38.77
9	12185.00	63.38 PK	74.00	-10.62	1.37 H	259	12.56	50.82
10	12185.00	52.60 AV	54.00	-1.40	1.37 H	259	1.78	50.82

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	100.65 PK			1.04 V	91	68.38	32.27
2	*2437.00	97.43 AV			1.04 V	91	65.16	32.27
3	3249.00	48.80 PK	74.00	-25.20	1.07 V	287	14.39	34.41
4	3249.00	43.05 AV	54.00	-10.95	1.07 V	287	8.64	34.41
5	4874.00	50.46 PK	74.00	-23.54	1.22 V	286	11.69	38.77
6	4874.00	44.80 AV	54.00	-9.20	1.22 V	286	6.03	38.77

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.33 PK			1.36 H	310	73.97	32.36
2	*2462.00	103.30 AV			1.36 H	310	70.94	32.36
3	2483.50	60.93 PK	74.00	-13.07	1.36 H	278	28.49	32.44
4	2483.50	52.76 AV	54.00	-1.24	1.36 H	278	20.32	32.44
5	3282.00	48.77 PK	74.00	-25.23	1.15 H	268	14.33	34.44
6	3282.00	44.31 AV	54.00	-9.69	1.15 H	268	9.87	34.44
7	4924.00	53.16 PK	74.00	-20.84	1.16 H	228	14.26	38.90
8	4924.00	45.96 AV	54.00	-8.04	1.16 H	228	7.06	38.90
9	12310.00	60.96 PK	74.00	-13.04	1.36 H	257	10.21	50.75
10	12310.00	50.50 AV	54.00	-3.50	1.36 H	257	-0.25	50.75

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	100.47 PK			1.57 V	100	68.11	32.36
2	*2462.00	97.30 AV			1.57 V	100	64.94	32.36
3	2483.50	59.50 PK	74.00	-14.50	1.56 V	100	27.06	32.44
4	2483.50	51.20 AV	54.00	-2.80	1.56 V	100	18.76	32.44
5	3282.00	47.07 PK	74.00	-26.93	1.04 V	271	12.63	34.44
6	3282.00	41.41 AV	54.00	-12.59	1.04 V	271	6.97	34.44
7	4924.00	49.53 PK	74.00	-24.47	1.10 V	271	10.63	38.90
8	4924.00	41.35 AV	54.00	-12.65	1.10 V	271	2.45	38.90

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	111.09 PK			1.39 H	308	78.91	32.18
2	*2412.00	98.88 AV			1.39 H	308	66.70	32.18
3	2390.00	70.16 PK	74.00	-3.84	1.38 H	310	38.06	32.10
4	2390.00	52.38 AV	54.00	-1.62	1.38 H	310	20.28	32.10
5	3216.00	50.42 PK	74.00	-23.58	1.17 H	273	16.04	34.38
6	3216.00	45.28 AV	54.00	-8.72	1.17 H	273	10.90	34.38
7	4824.00	50.62 PK	74.00	-23.38	1.17 H	246	11.99	38.63
8	4824.00	43.21 AV	54.00	-10.79	1.17 H	246	4.58	38.63

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	104.92 PK			1.61 V	99	72.74	32.18
2	*2412.00	92.39 AV			1.61 V	99	60.21	32.18
3	2390.00	64.03 PK	74.00	-9.97	1.61 V	99	31.93	32.10
4	2390.00	46.25 AV	54.00	-7.75	1.61 V	99	14.15	32.10
5	3216.00	47.52 PK	74.00	-26.48	1.10 V	260	13.14	34.38
6	3216.00	40.60 AV	54.00	-13.40	1.10 V	260	6.22	34.38
7	4824.00	47.36 PK	74.00	-26.64	1.20 V	38	8.73	38.63
8	4824.00	40.03 AV	54.00	-13.97	1.20 V	38	1.40	38.63

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	113.18 PK			1.38 H	277	80.91	32.27
2	*2437.00	100.84 AV			1.38 H	277	68.57	32.27
3	3248.00	50.60 PK	74.00	-23.40	1.13 H	241	16.19	34.41
4	3248.00	45.48 AV	54.00	-8.52	1.13 H	241	11.07	34.41
5	4874.00	50.24 PK	74.00	-23.76	1.10 H	221	11.47	38.77
6	4874.00	42.86 AV	54.00	-11.14	1.10 H	221	4.09	38.77

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	106.96 PK			1.60 V	100	74.69	32.27
2	*2437.00	94.45 AV			1.60 V	100	62.18	32.27
3	3248.00	47.66 PK	74.00	-26.34	1.13 V	84	13.25	34.41
4	3248.00	40.75 AV	54.00	-13.25	1.13 V	84	6.34	34.41
5	4874.00	47.69 PK	74.00	-26.31	1.11 V	126	8.92	38.77
6	4874.00	40.38 AV	54.00	-13.62	1.11 V	126	1.61	38.77

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	111.67 PK			1.33 H	307	79.31	32.36
2	*2462.00	99.60 AV			1.33 H	307	67.24	32.36
3	2483.50	68.76 PK	74.00	-5.24	1.34 H	309	36.32	32.44
4	2483.50	52.66 AV	54.00	-1.34	1.34 H	309	20.22	32.44
5	3282.00	51.36 PK	74.00	-22.64	1.15 H	261	16.92	34.44
6	3282.00	45.74 AV	54.00	-8.26	1.15 H	261	11.30	34.44
7	4924.00	48.83 PK	74.00	-25.17	1.10 H	221	9.93	38.90
8	4924.00	41.46 AV	54.00	-12.54	1.10 H	221	2.56	38.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	105.38 PK			1.60 V	103	73.02	32.36
2	*2462.00	92.84 AV			1.60 V	103	60.48	32.36
1	2483.50	64.25 PK	74.00	-9.75	1.60 V	103	31.81	32.44
2	2483.50	46.49 AV	54.00	-7.51	1.60 V	103	14.05	32.44
3	3282.00	47.61 PK	74.00	-26.39	1.05 V	24	13.17	34.44
4	3282.00	40.72 AV	54.00	-13.28	1.05 V	24	6.28	34.44
5	4924.00	46.22 PK	74.00	-27.78	1.19 V	23	7.32	38.90
6	4924.00	39.84 AV	54.00	-14.16	1.19 V	23	0.94	38.90

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Morgan Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	112.52 PK			1.06 H	50	80.89	31.63
2	*2412.00	100.25 AV			1.06 H	50	68.62	31.63
3	2389.20	71.17 PK	74.00	-2.83	1.06 H	51	39.64	31.53
4	2389.20	52.52 AV	54.00	-1.48	1.06 H	51	20.99	31.53
5	3216.00	49.99 PK	74.00	-24.01	1.15 H	265	16.22	33.77
6	3216.00	44.75 AV	54.00	-9.25	1.15 H	265	10.98	33.77
7	4824.00	54.30 PK	74.00	-19.70	1.21 H	358	16.10	38.20
8	4824.00	40.98 AV	54.00	-13.02	1.21 H	358	2.78	38.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	101.59 PK			1.00 V	347	69.96	31.63
2	*2412.00	90.24 AV			1.00 V	347	58.61	31.63
3	2389.20	66.32 PK	74.00	-7.68	1.00 V	325	34.79	31.53
4	2389.20	48.12 AV	54.00	-5.88	1.00 V	325	16.59	31.53
5	3216.00	47.62 PK	74.00	-26.38	1.13 V	259	13.85	33.77
6	3216.00	40.72 AV	54.00	-13.28	1.13 V	259	6.95	33.77
7	4824.00	52.12 PK	74.00	-21.88	1.15 V	312	13.92	38.20
8	4824.00	38.86 AV	54.00	-15.14	1.15 V	312	0.66	38.20

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Morgan Chen

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	113.06 PK			1.13 H	68	81.32	31.74
2	*2437.00	100.74 AV			1.13 H	68	69.00	31.74
3	3248.00	50.12 PK	74.00	-23.88	1.18 H	276	16.24	33.88
4	3248.00	44.86 AV	54.00	-9.14	1.18 H	276	10.98	33.88
5	4874.00	54.85 PK	74.00	-19.15	1.18 H	342	16.59	38.26
6	4874.00	41.32 AV	54.00	-12.68	1.18 H	342	3.06	38.26

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	102.01 PK			1.10 V	352	70.27	31.74
2	*2437.00	90.81 AV			1.10 V	352	59.07	31.74
3	3248.00	47.85 PK	74.00	-26.15	1.15 V	265	13.97	33.88
4	3248.00	40.83 AV	54.00	-13.17	1.15 V	265	6.95	33.88
5	4874.00	52.23 PK	74.00	-21.77	1.18 V	306	13.97	38.26
6	4874.00	38.91 AV	54.00	-15.09	1.18 V	306	0.65	38.26

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	112.26 PK			1.29 H	66	80.41	31.85
2	*2462.00	100.04 AV			1.29 H	66	68.19	31.85
3	2483.50	68.72 PK	74.00	-5.28	1.30 H	66	36.78	31.94
4	**2483.50**	**52.98 AV**	**54.00**	**-1.02**	**1.30 H**	**66**	**21.04**	**31.94**
5	3282.00	50.11 PK	74.00	-23.89	1.23 H	345	16.10	34.01
6	3282.00	44.89 AV	54.00	-9.11	1.23 H	345	10.88	34.01
7	4924.00	54.89 PK	74.00	-19.11	1.28 H	345	16.57	38.32
8	4924.00	41.29 AV	54.00	-12.71	1.28 H	345	2.97	38.32

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.23 PK			1.00 V	325	69.38	31.85
2	*2462.00	89.97 AV			1.00 V	325	58.12	31.85
3	2483.50	66.56 PK	74.00	-7.44	1.00 V	315	34.62	31.94
4	2483.50	48.32 AV	54.00	-5.68	1.00 V	315	16.38	31.94
5	3282.00	48.32 PK	74.00	-25.68	1.08 V	235	14.31	34.01
6	3282.00	41.23 AV	54.00	-12.77	1.08 V	235	7.22	34.01
7	4924.00	52.32 PK	74.00	-21.68	1.12 V	305	14.00	38.32
8	4924.00	38.98 AV	54.00	-15.02	1.12 V	305	0.66	38.32

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2422.00	107.27 PK			1.41 H	279	75.05	32.22
2	*2422.00	94.40 AV			1.41 H	279	62.18	32.22
3	2390.00	67.10 PK	74.00	-6.90	1.39 H	280	35.00	32.10
4	2390.00	52.21 AV	54.00	-1.79	1.39 H	280	20.11	32.10
5	3229.00	49.65 PK	74.00	-24.35	1.13 H	274	15.26	34.39
6	3229.00	44.42 AV	54.00	-9.58	1.13 H	274	10.03	34.39
7	4844.00	54.02 PK	74.00	-19.98	1.20 H	321	15.34	38.68
8	4844.00	40.61 AV	54.00	-13.39	1.20 H	321	1.93	38.68

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2422.00	96.00 PK			1.71 V	338	63.78	32.22
2	*2422.00	83.39 AV			1.71 V	338	51.17	32.22
3	2390.00	61.80 PK	74.00	-12.20	1.71 V	338	29.70	32.10
4	2390.00	46.50 AV	54.00	-7.50	1.71 V	338	14.40	32.10
5	3229.00	47.21 PK	74.00	-26.79	1.16 V	28	12.82	34.39
6	3229.00	40.34 AV	54.00	-13.66	1.16 V	28	5.95	34.39
7	4844.00	51.86 PK	74.00	-22.14	1.10 V	96	13.18	38.68
8	4844.00	38.54 AV	54.00	-15.46	1.10 V	96	-0.14	38.68

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.57 PK	74.00	-8.43	1.41 H	282	33.47	32.10
2	2390.00	52.48 AV	54.00	-1.52	1.41 H	282	20.38	32.10
3	*2437.00	109.55 PK			1.38 H	275	77.28	32.27
4	*2437.00	96.57 AV			1.38 H	275	64.30	32.27
5	3248.00	49.98 PK	74.00	-24.02	1.10 H	296	15.57	34.41
6	3248.00	44.81 AV	54.00	-9.19	1.10 H	296	10.40	34.41
7	4874.00	55.39 PK	74.00	-18.61	1.13 H	26	16.62	38.77
8	4874.00	41.96 AV	54.00	-12.04	1.13 H	26	3.19	38.77

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	98.14 PK			1.70 V	336	65.87	32.27
2	*2437.00	85.53 AV			1.70 V	336	53.26	32.27
3	3248.00	48.36 PK	74.00	-25.64	1.10 V	217	13.95	34.41
4	3248.00	41.52 AV	54.00	-12.48	1.10 V	217	7.11	34.41
5	4874.00	52.81 PK	74.00	-21.19	1.12 V	288	14.04	38.77
6	4874.00	39.44 AV	54.00	-14.56	1.12 V	288	0.67	38.77

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	107.51 PK			1.36 H	281	75.18	32.33
2	*2452.00	95.02 AV			1.36 H	281	62.69	32.33
3	2483.50	68.49 PK	74.00	-5.51	1.36 H	275	36.05	32.44
4	2483.50	52.39 AV	54.00	-1.61	1.36 H	275	19.95	32.44
5	3269.00	49.87 PK	74.00	-24.13	1.12 H	286	15.44	34.43
6	3269.00	44.65 AV	54.00	-9.35	1.12 H	286	10.22	34.43
7	4904.00	54.38 PK	74.00	-19.62	1.18 H	239	15.53	38.85
8	4904.00	40.95 AV	54.00	-13.05	1.18 H	239	2.10	38.85

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	96.43 PK			1.70 V	336	64.10	32.33
2	*2452.00	83.91 AV			1.70 V	336	51.58	32.33
3	2483.50	60.80 PK	74.00	-13.20	1.70 V	336	28.36	32.44
4	2483.50	48.20 AV	54.00	-5.80	1.70 V	336	15.76	32.44
5	3269.00	47.36 PK	74.00	-26.64	1.13 V	245	12.93	34.43
6	3269.00	40.48 AV	54.00	-13.52	1.13 V	245	6.05	34.43
7	4904.00	51.74 PK	74.00	-22.26	1.10 V	262	12.89	38.85
8	4904.00	38.32 AV	54.00	-15.68	1.10 V	262	-0.53	38.85

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

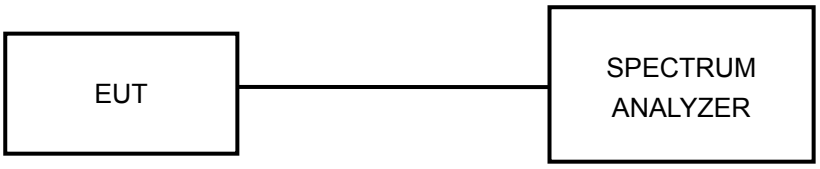
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

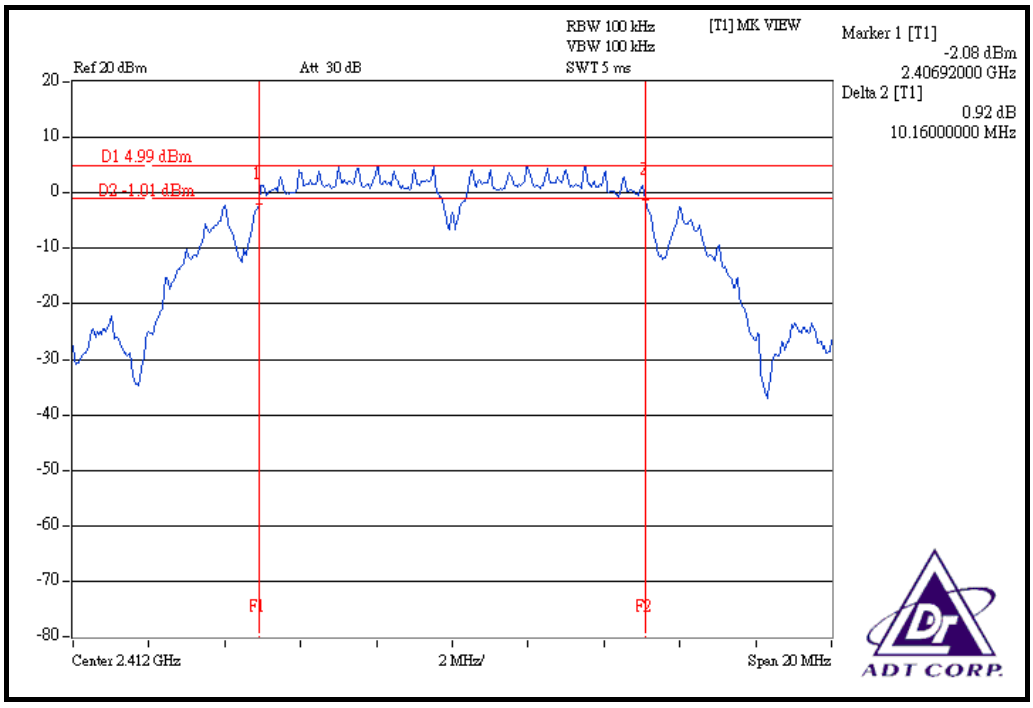
4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

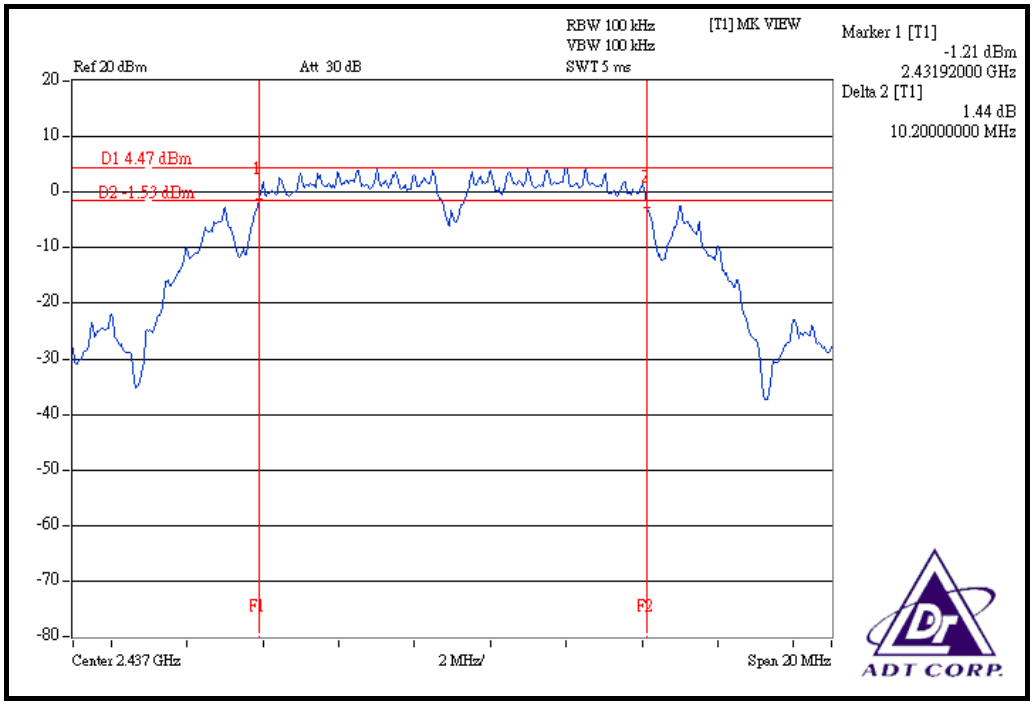
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	10.16	0.5	PASS
6	2437	10.20	0.5	PASS
11	2462	10.16	0.5	PASS

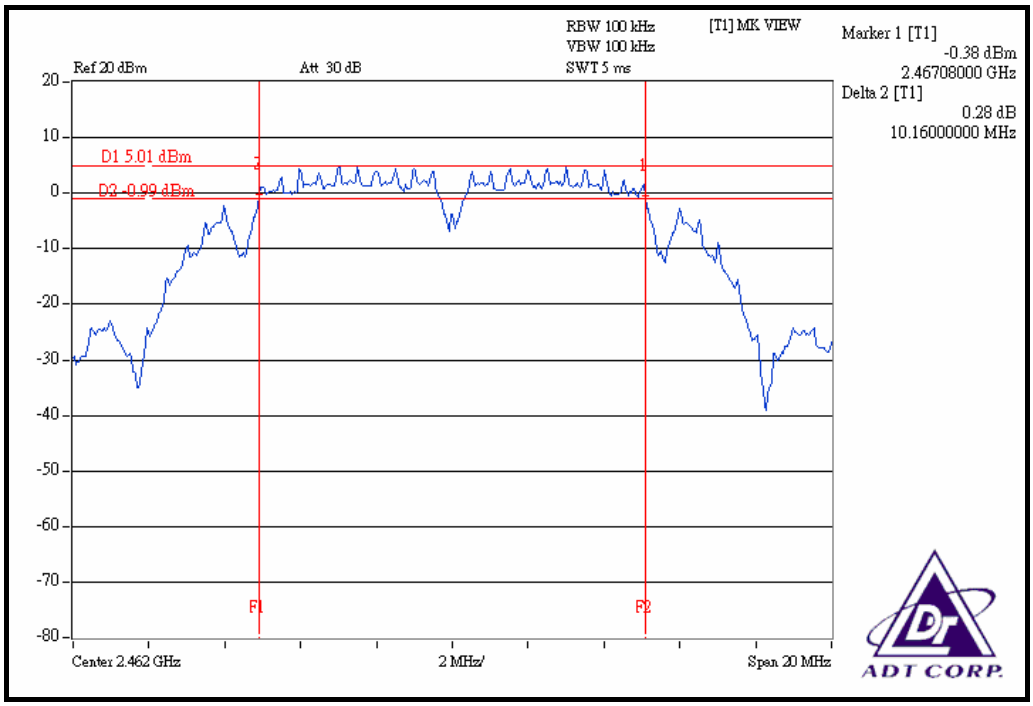
CH 1



CH 6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-1.21 dBm
2.43192000 GHz
Delta 2 [T1]
1.44 dB
10.20000000 MHz
Ref 20 dBm
Att 30 dB
D1 4.47 dBm
D2 -1.53 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

CH 11

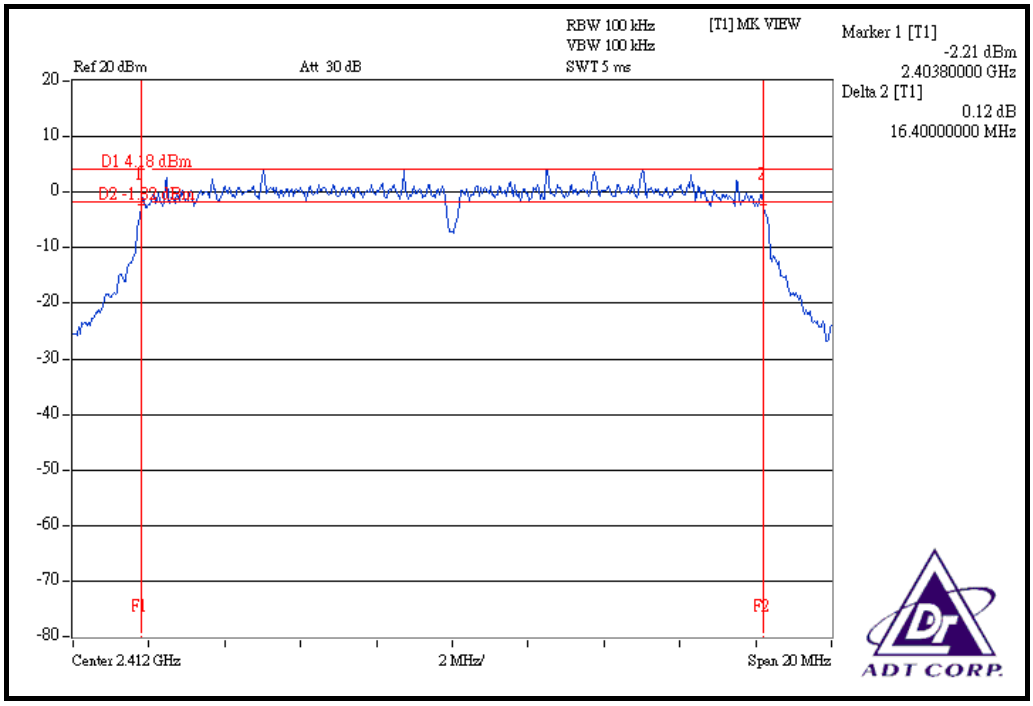

RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-0.38 dBm
2.46708000 GHz
Delta 2 [T1]
0.28 dB
10.16000000 MHz
Ref 20 dBm
Att 30 dB
D1 5.01 dBm
D2 -0.99 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

802.11g OFDM MODULATION:

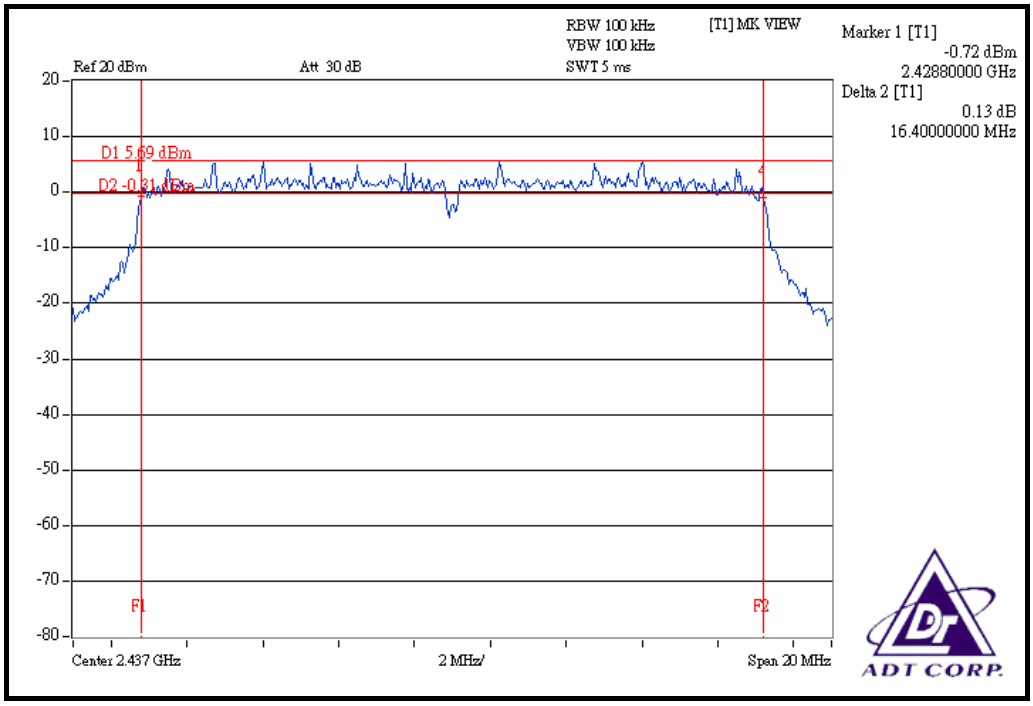
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.40	0.5	PASS
6	2437	16.40	0.5	PASS
11	2462	16.40	0.5	PASS

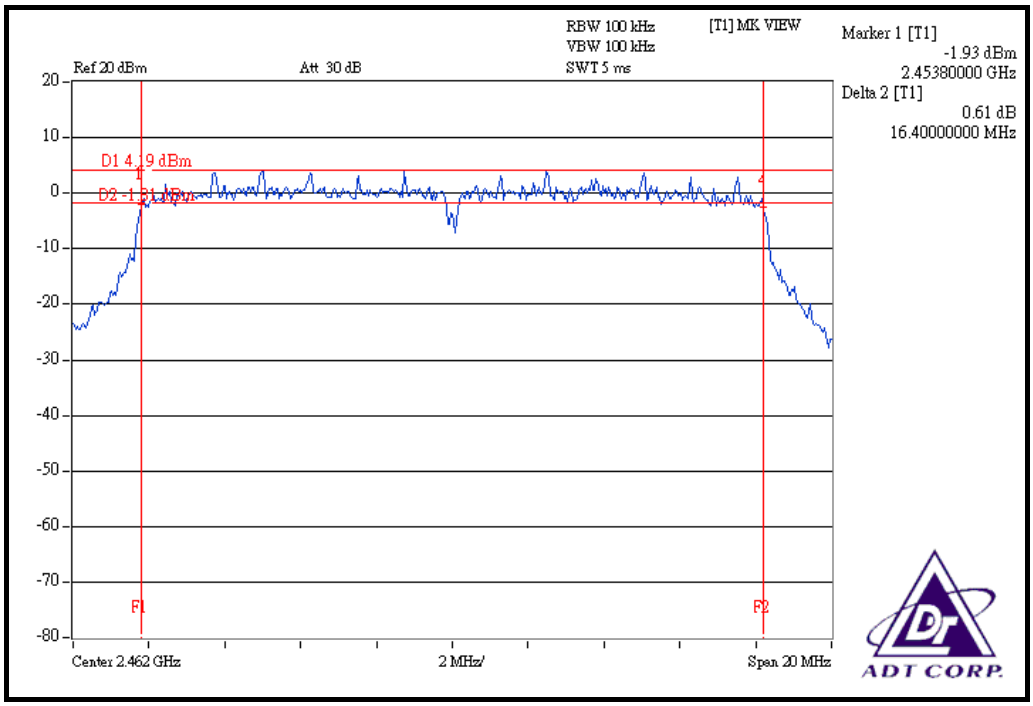
CH 1



CH 6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-0.72 dBm
2.42880000 GHz
Delta 2 [T1]
0.13 dB
16.40000000 MHz
Ref 20 dBm
Att 30 dB
D1 5.69 dBm
D2 -0.31 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

CH 11

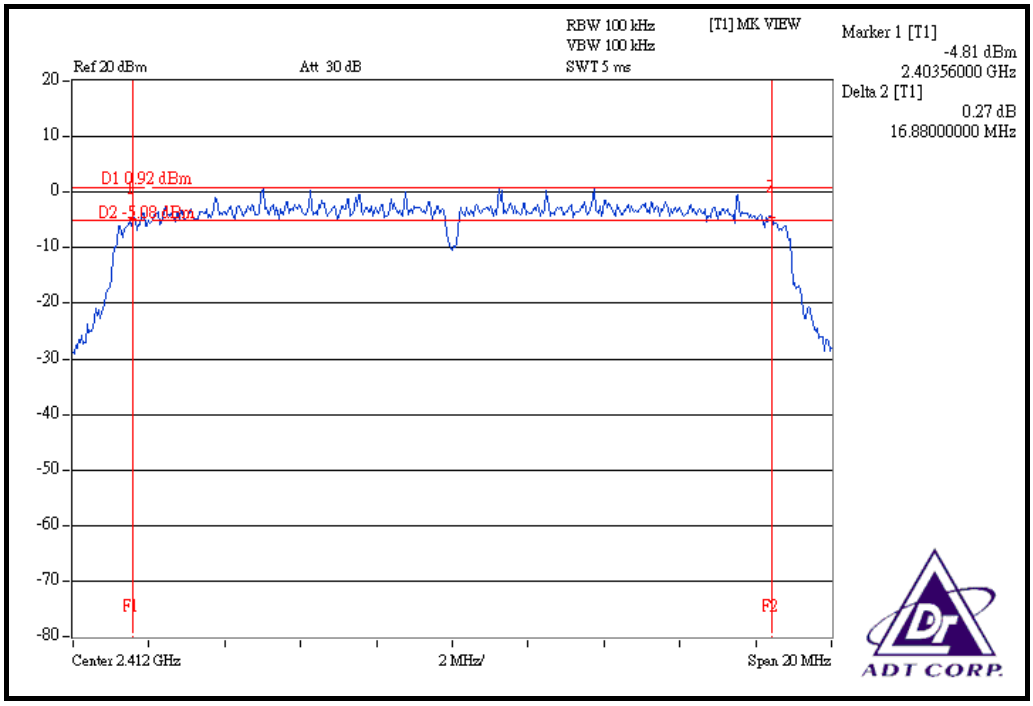

RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-1.93 dBm
2.45380000 GHz
Delta 2 [T1]
0.61 dB
16.40000000 MHz
Ref 20 dBm
Att 30 dB
D1 4.19 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION:

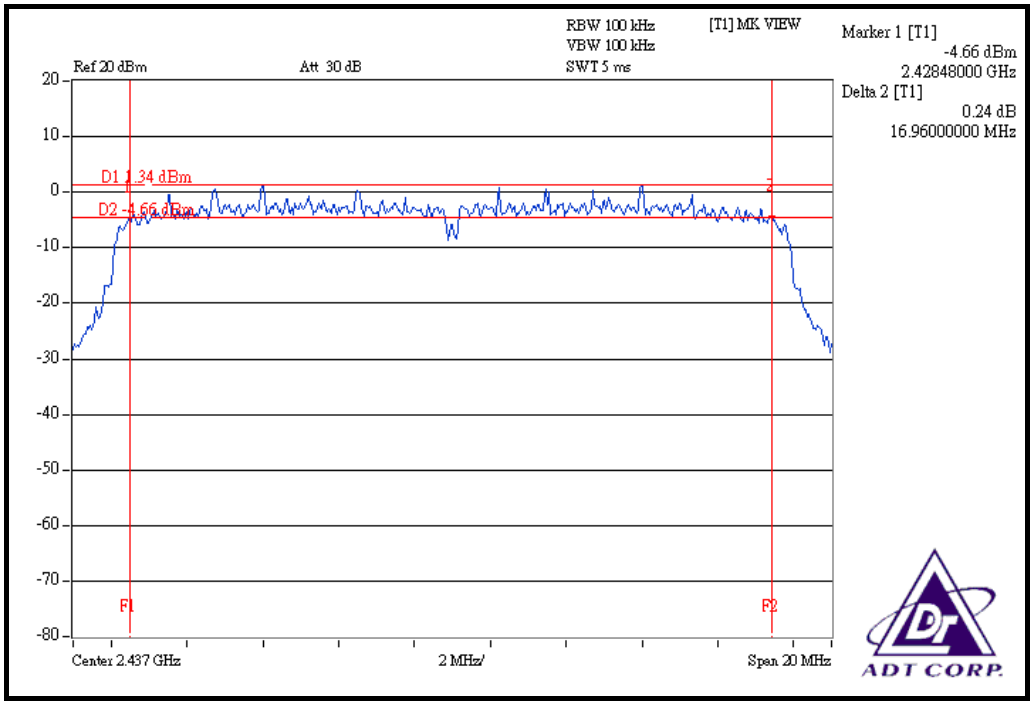
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.88	17.00	0.5	PASS
6	2437	16.96	16.76	0.5	PASS
11	2462	16.84	17.20	0.5	PASS

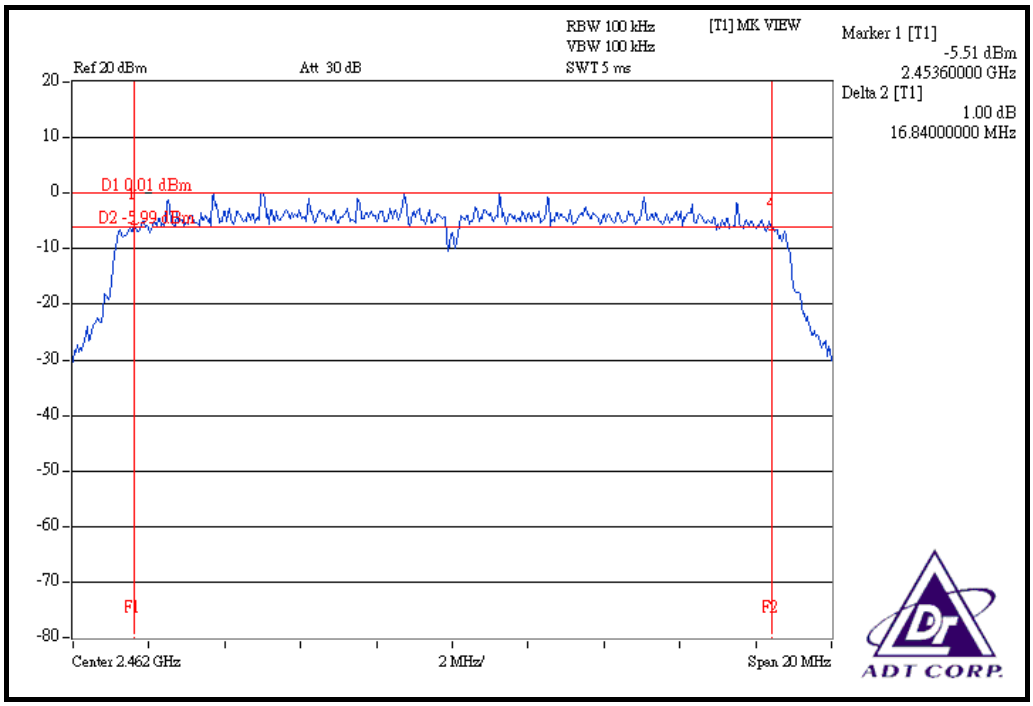
FOR CHAIN 0: CH 1



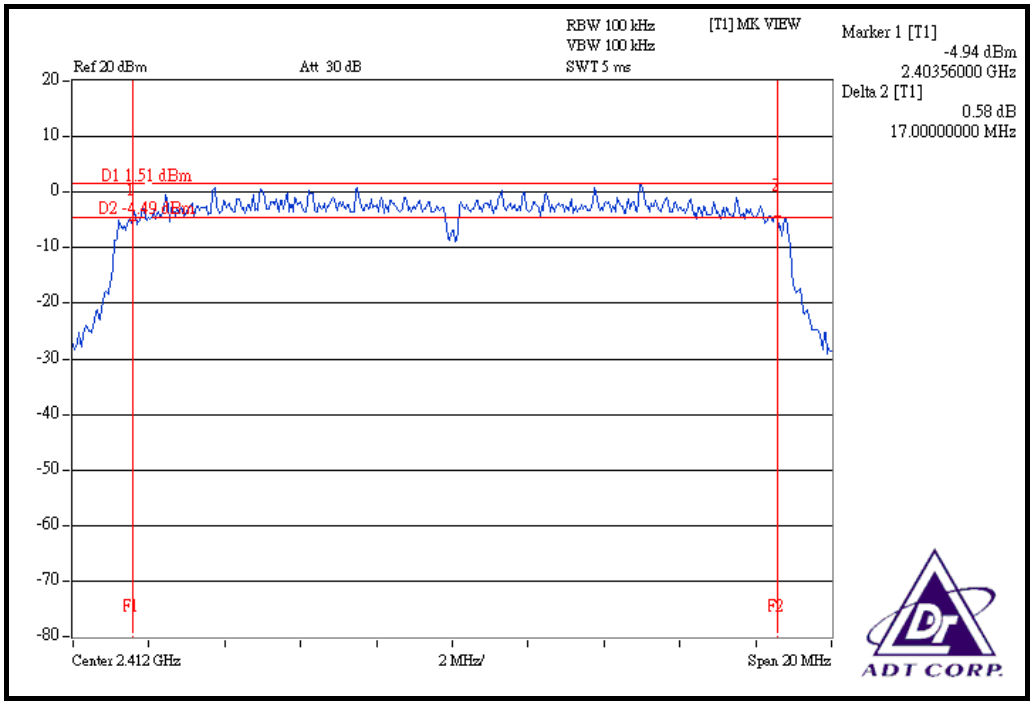
CH 6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-4.66 dBm
2.42848000 GHz
Delta 2 [T1]
0.24 dB
16.96000000 MHz
Ref 20 dBm
Att 30 dB
D1 1.34 dBm
D2 -4.66 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

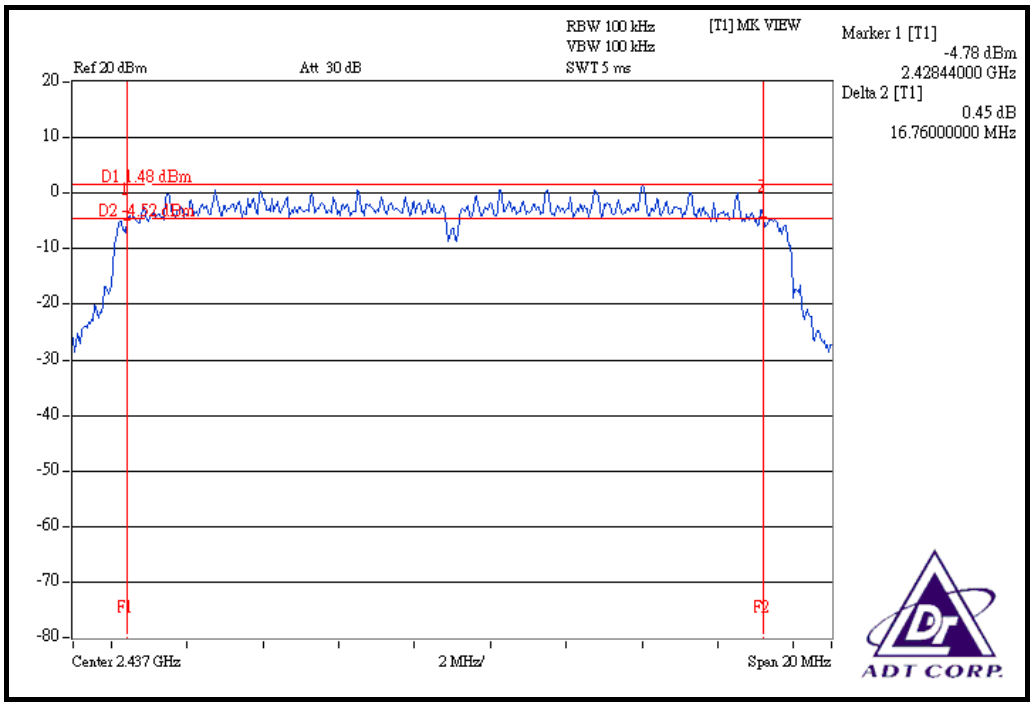
CH 11


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-5.51 dBm
2.45360000 GHz
Delta 2 [T1]
1.00 dB
16.84000000 MHz
Ref 20 dBm
Att 30 dB
D1 0.01 dBm
D2 -5.99 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

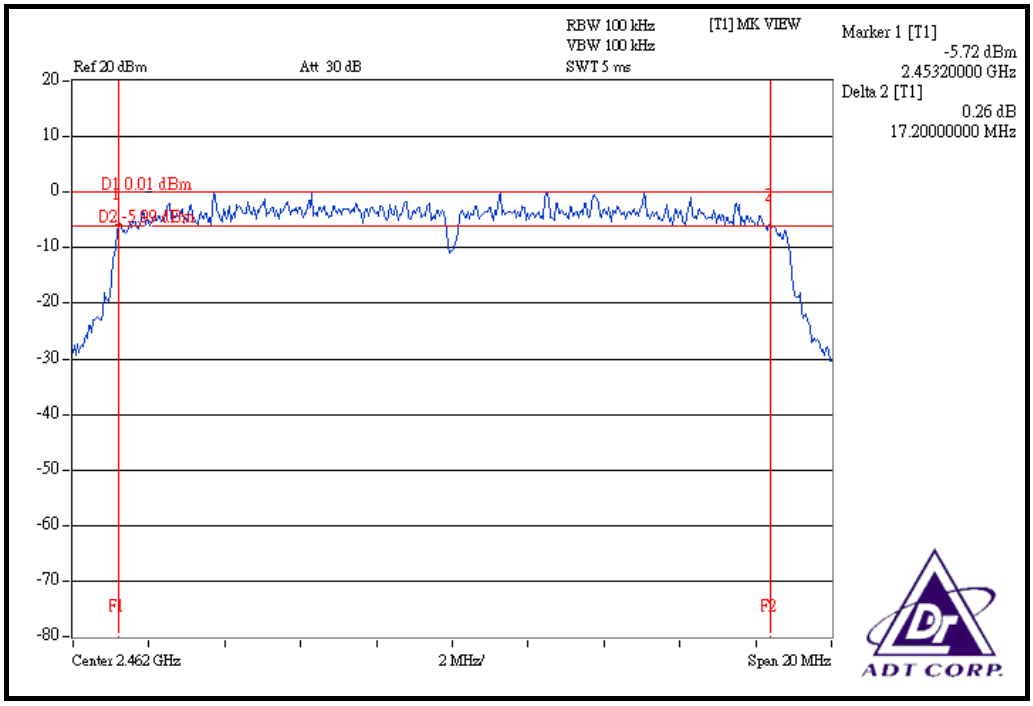
FOR CHAIN 1: CH 1



CH 6



CH 11

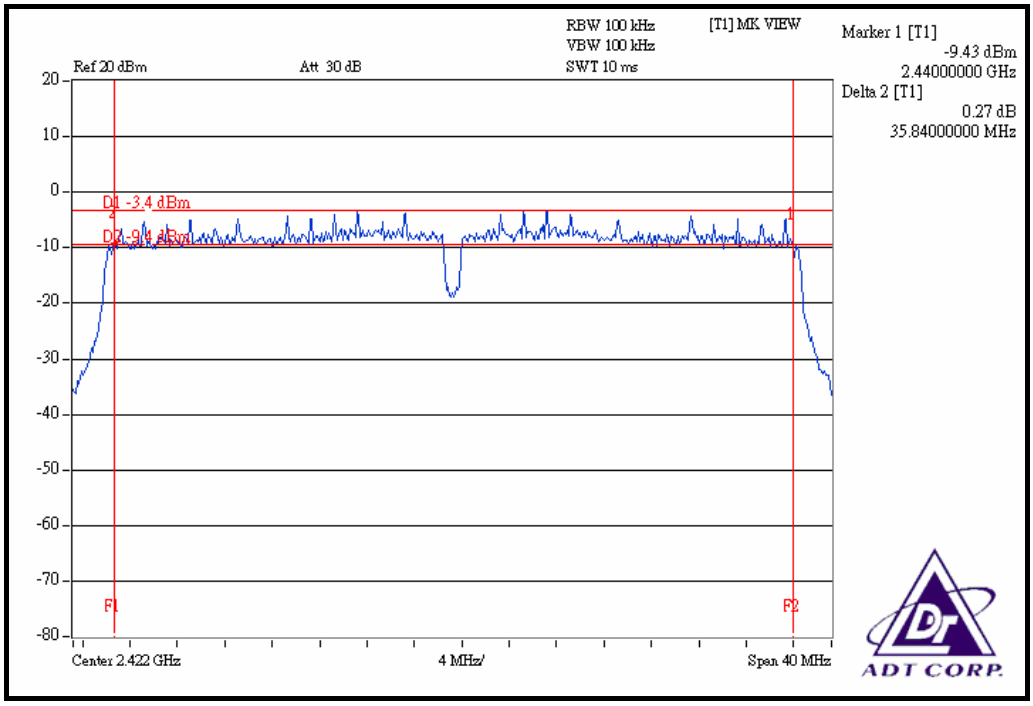

RBW 100 kHz
VBW 100 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-5.72 dBm
2.45320000 GHz
Delta 2 [T1]
0.26 dB
17.20000000 MHz
Ref 20 dBm
Att 30 dB
D1 0.01 dBm
D2 -5.99 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION:

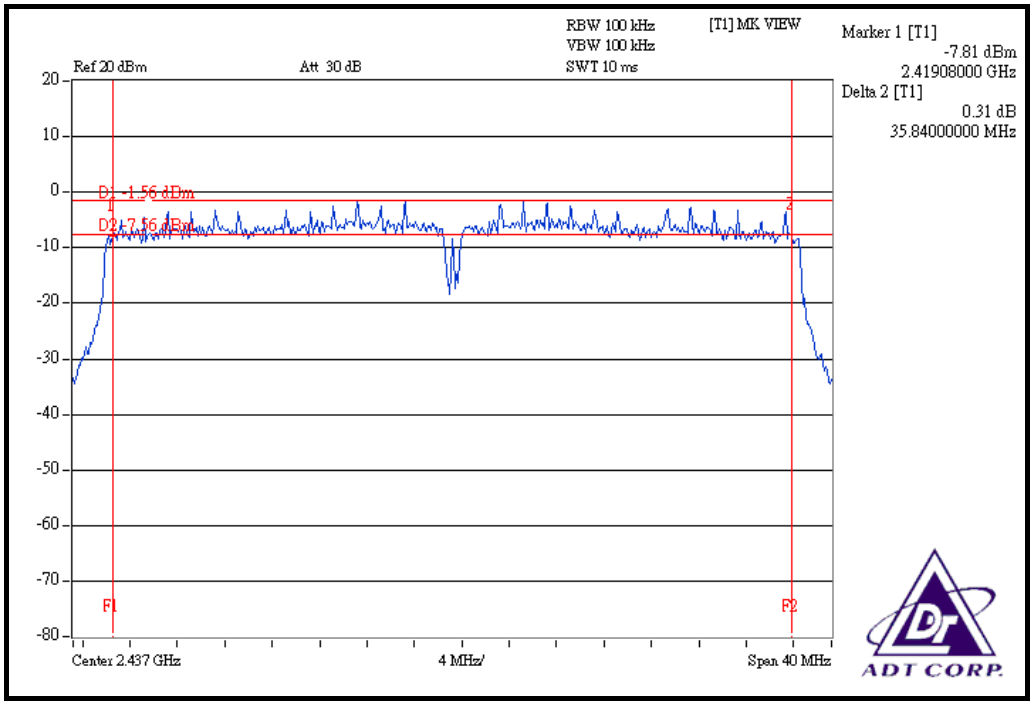
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	35.84	36.32	0.5	PASS
4	2437	35.84	35.52	0.5	PASS
7	2452	35.60	35.92	0.5	PASS

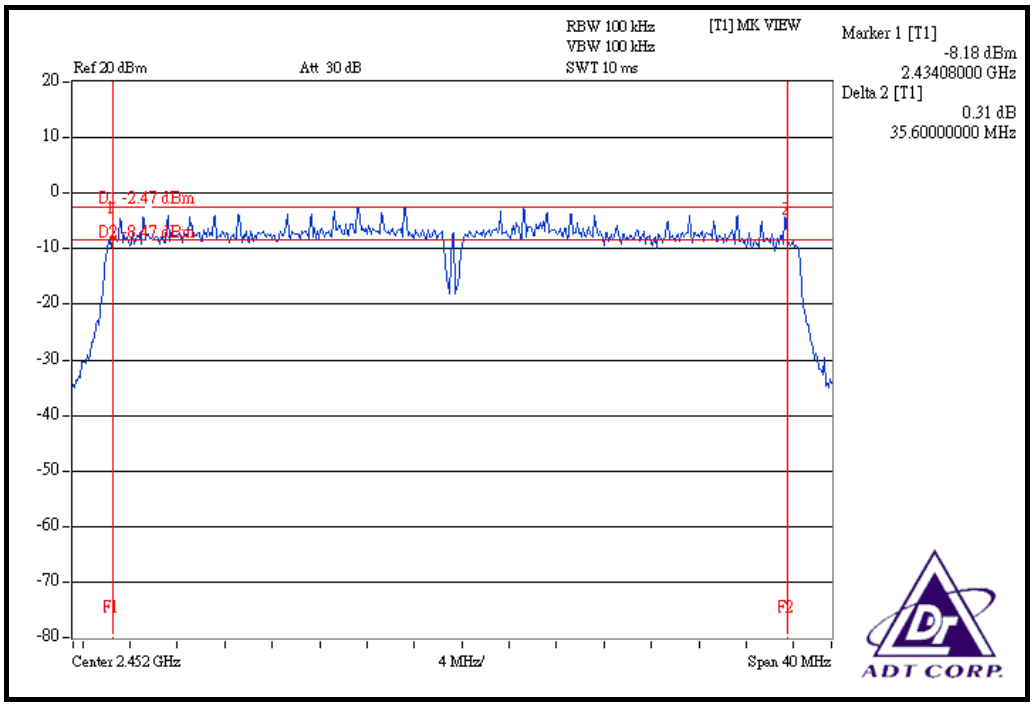
FOR CHAIN 0: CH 1



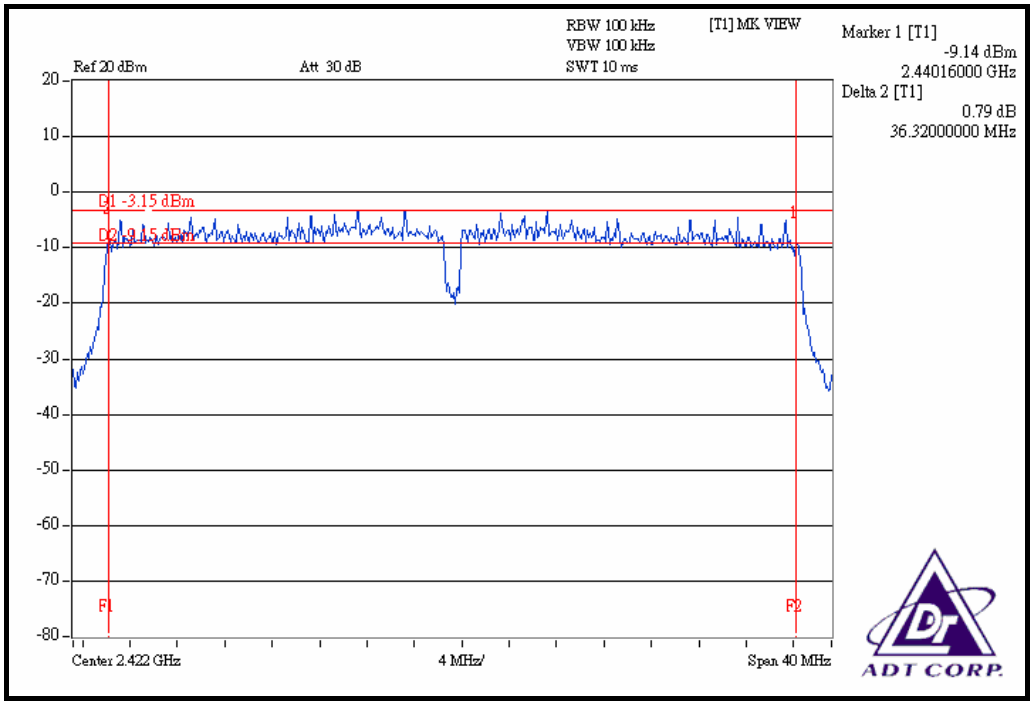
CH 4


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Marker 1 [T1]
-7.81 dBm
2.41908000 GHz
Delta 2 [T1]
0.31 dB
35.84000000 MHz
Ref 20 dBm
Att 30 dB
D1 -1.56 dBm
D2 -7.56 dBm
F1
F2
Center 2.437 GHz
4 MHz/
Span 40 MHz
ADT CORP.

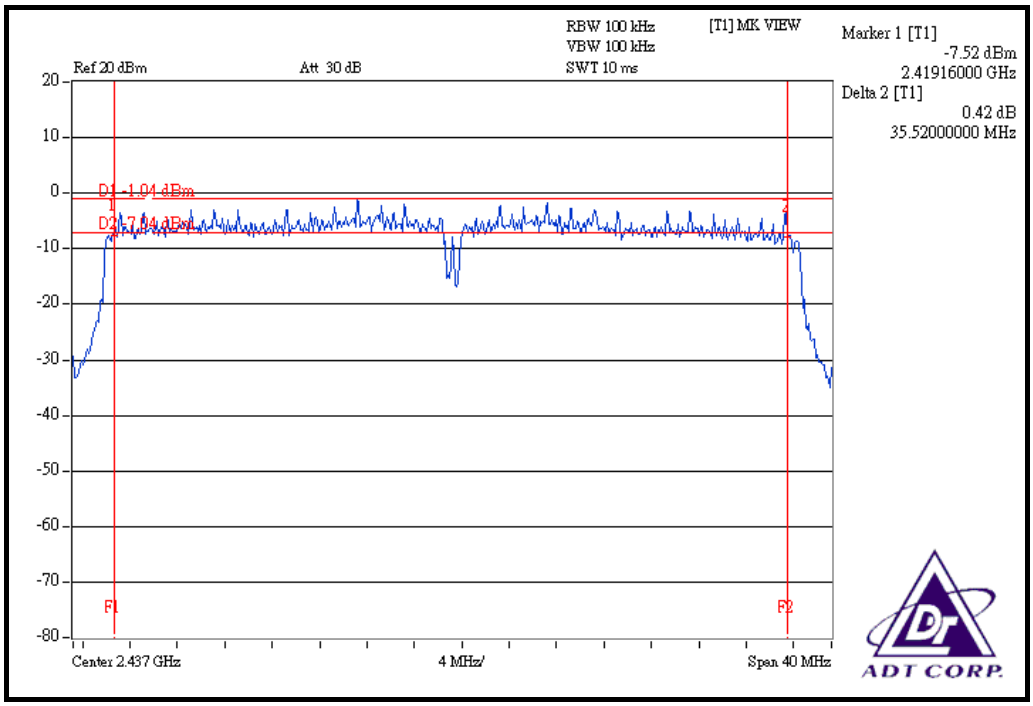
CH 7


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Marker 1 [T1]
-8.18 dBm
2.43408000 GHz
Delta 2 [T1]
0.31 dB
35.60000000 MHz
Ref 20 dBm
Att 30 dB
D1 -2.47 dBm
D2 -8.47 dBm
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz
ADT CORP.

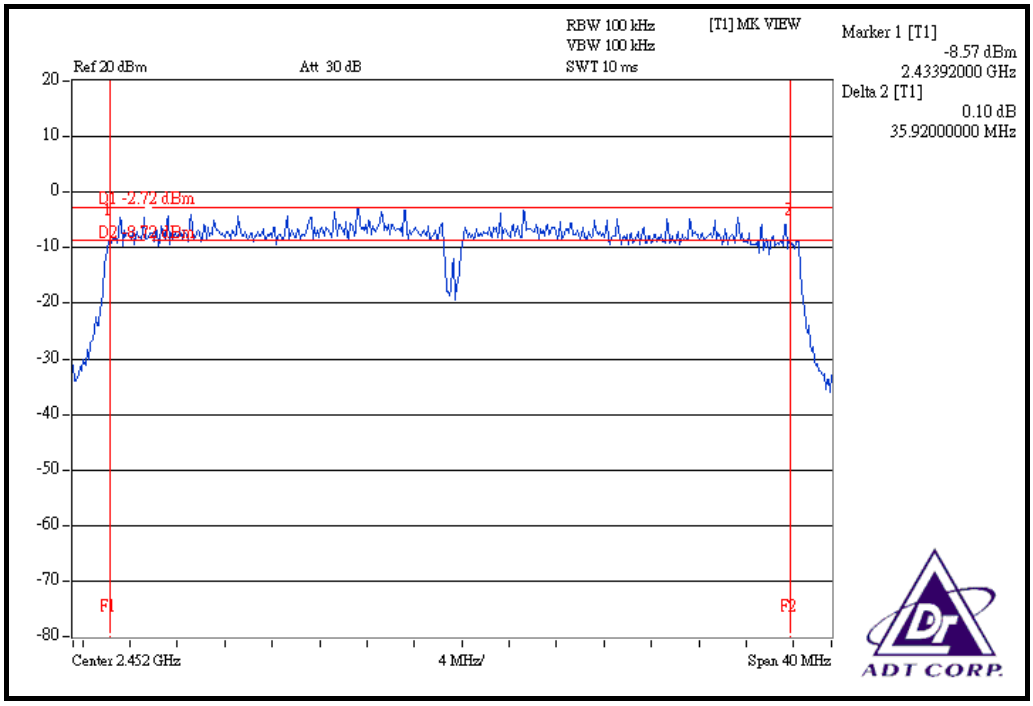
FOR CHAIN 1: CH 1



CH 4



CH 7


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Marker 1 [T1]
-8.57 dBm
2.43392000 GHz
Delta 2 [T1]
0.10 dB
35.92000000 MHz
Ref 20 dBm
Att 30 dB
D1 -2.72 dBm
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz
ADT CORP.

4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008
ANRITSU SYNTHESIZED SIGNAL GENERATOR	68247B	984703	May 18, 2008
DIGITAL RT OSCILLOSCOPE	TDS1012	C037299	Nov. 27, 2007
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6

4.4.7 TEST RESULTS

802.11b DSSS MODULATION:

MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	63.241	18.01	30	PASS
6	2437	64.121	18.07	30	PASS
11	2462	63.533	18.03	30	PASS

802.11g OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	101.859	20.08	30	PASS
6	2437	141.906	21.52	30	PASS
11	2462	100.925	20.04	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	80.538	81.096	19.06	19.09	161.634	22.09	30	PASS
6	2437	79.799	79.983	19.02	19.03	159.783	22.04	30	PASS
11	2462	63.533	63.973	18.03	18.06	127.507	21.06	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2422	50.466	50.699	17.03	17.05	101.165	20.05	30	PASS
4	2437	81.096	81.096	19.09	19.09	162.192	22.10	30	PASS
7	2452	56.624	57.280	17.53	17.58	113.904	20.57	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST PROCEDURE

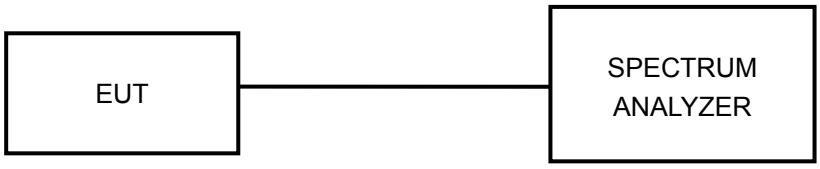
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

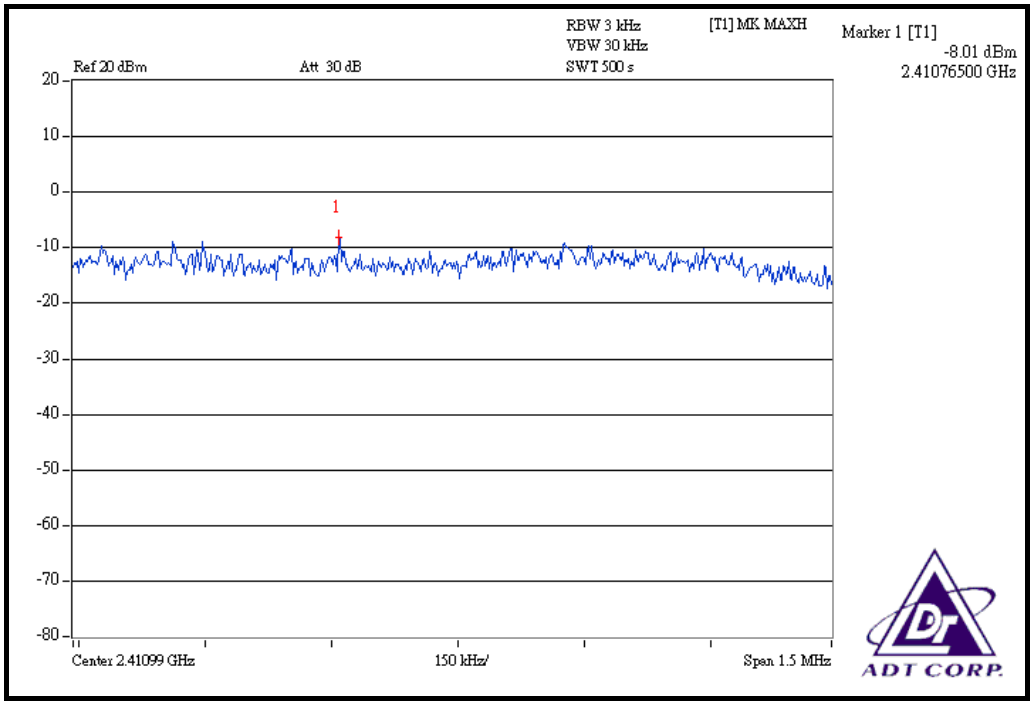
4.5.7 TEST RESULTS

802.11b DSSS MODULATION:

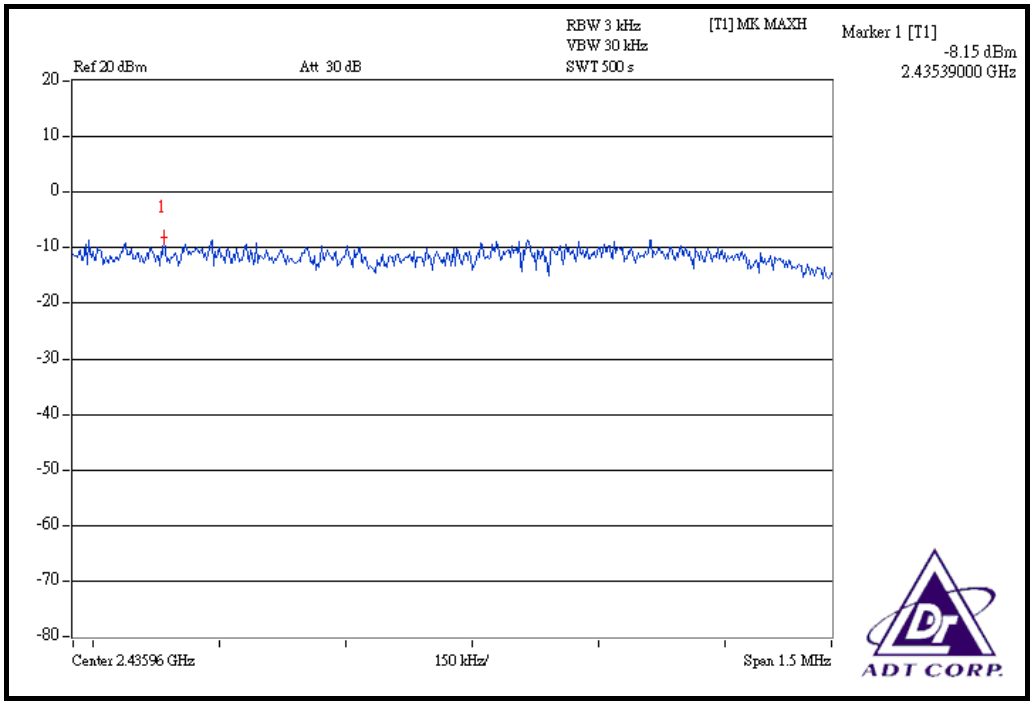
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-8.01	8	PASS
6	2437	-8.15	8	PASS
11	2462	-8.47	8	PASS

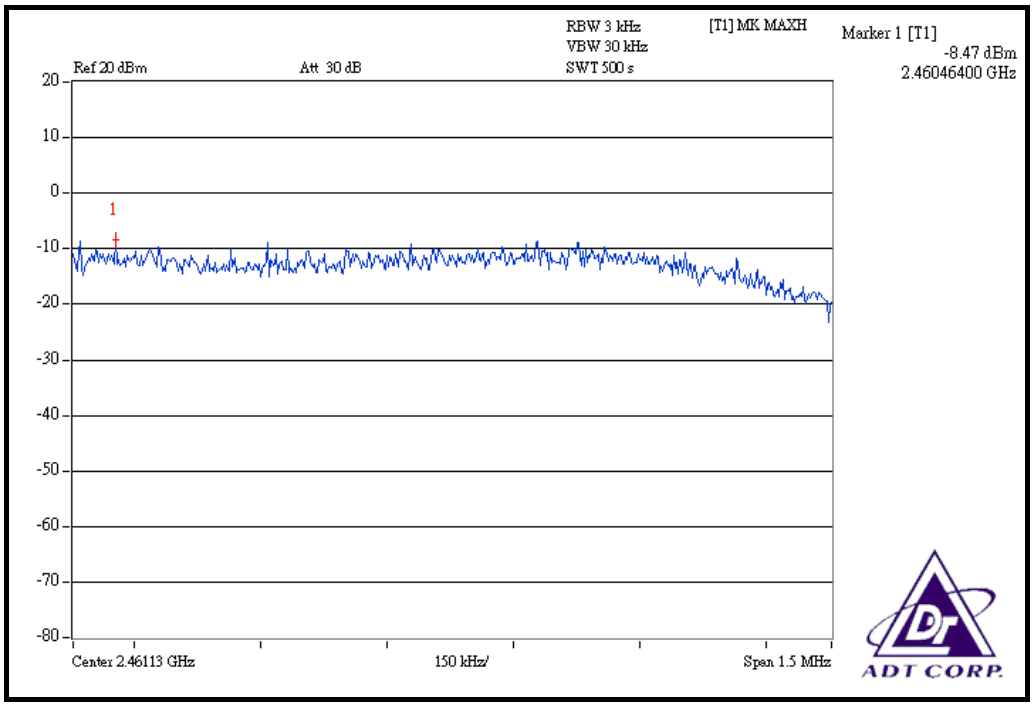
CH 1



CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-8.15 dBm
2.43539000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.43596 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

CH 11

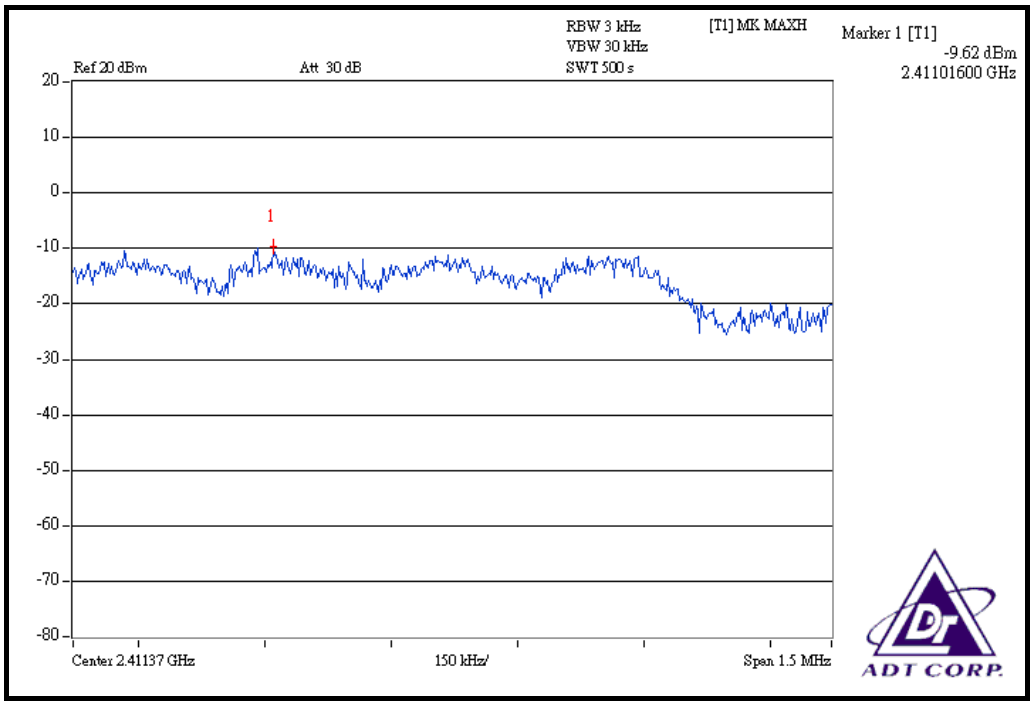

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-8.47 dBm
2.46046400 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.46113 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

802.11g OFDM MODULATION:

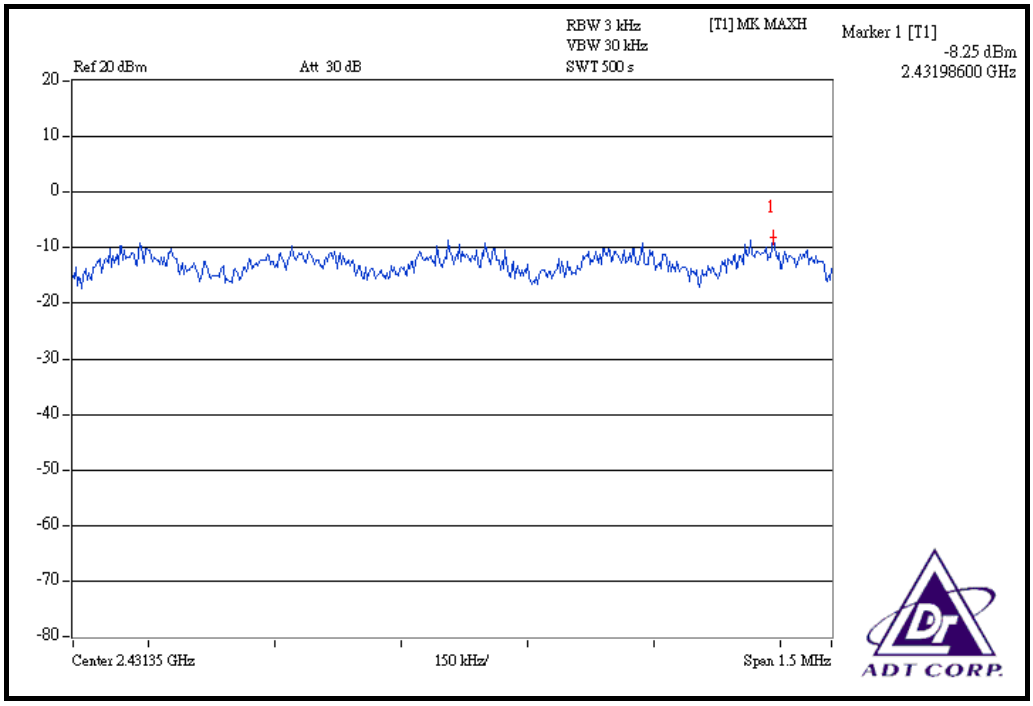
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-9.62	8	PASS
6	2437	-8.25	8	PASS
11	2462	-9.51	8	PASS

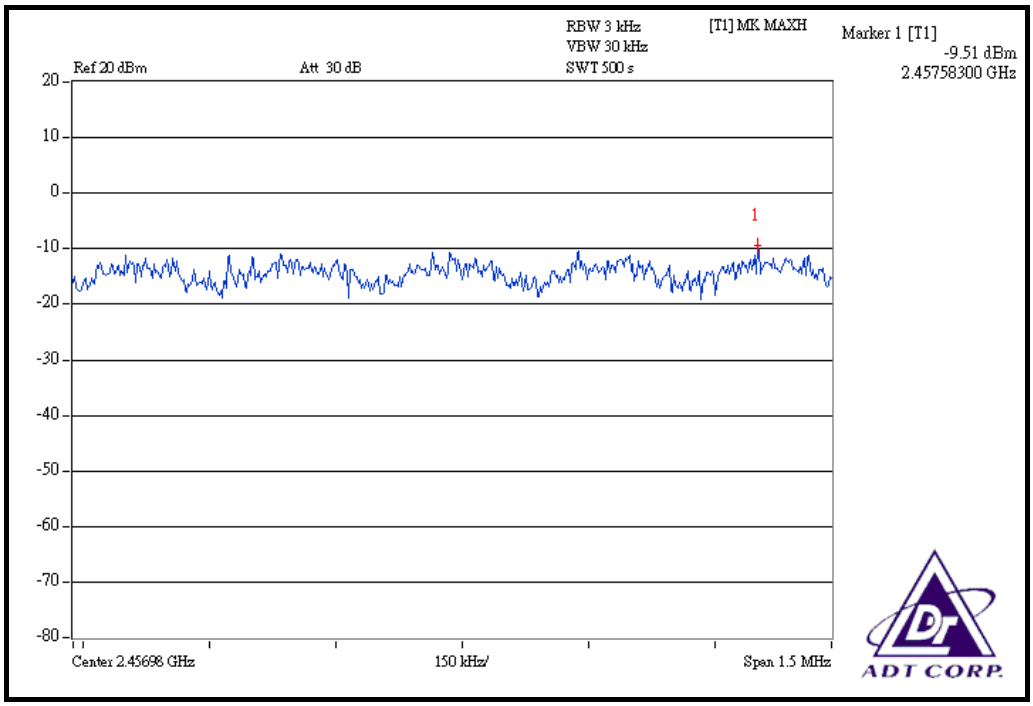
CH 1



CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-8.25 dBm
2.43198600 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.43135 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

CH 11

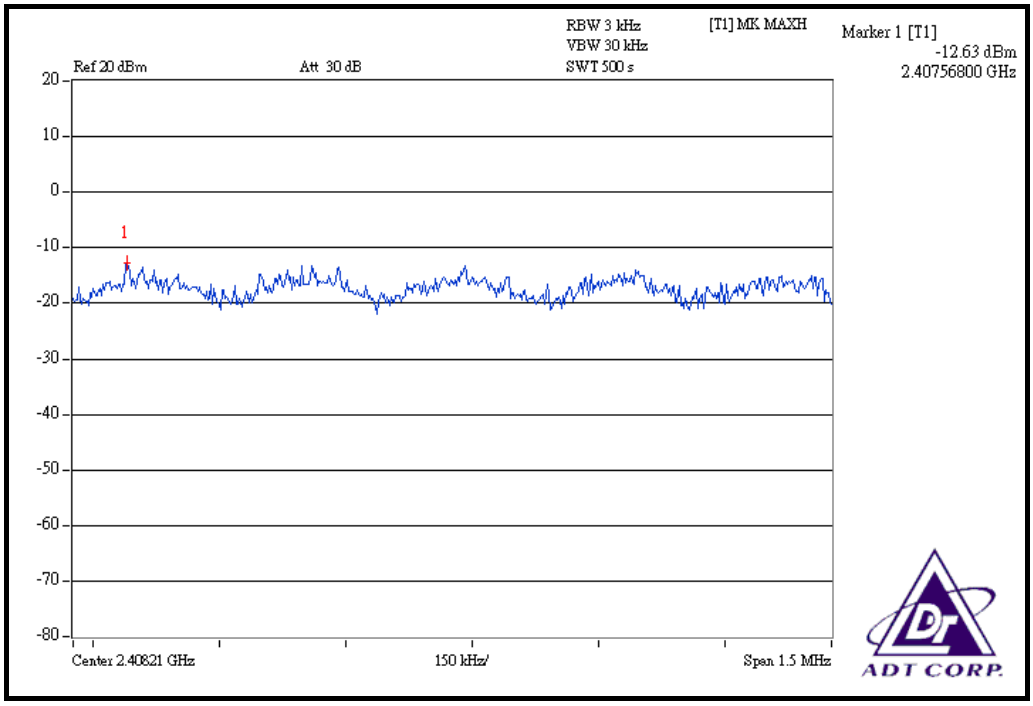

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-9.51 dBm
2.45758300 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.45698 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION:

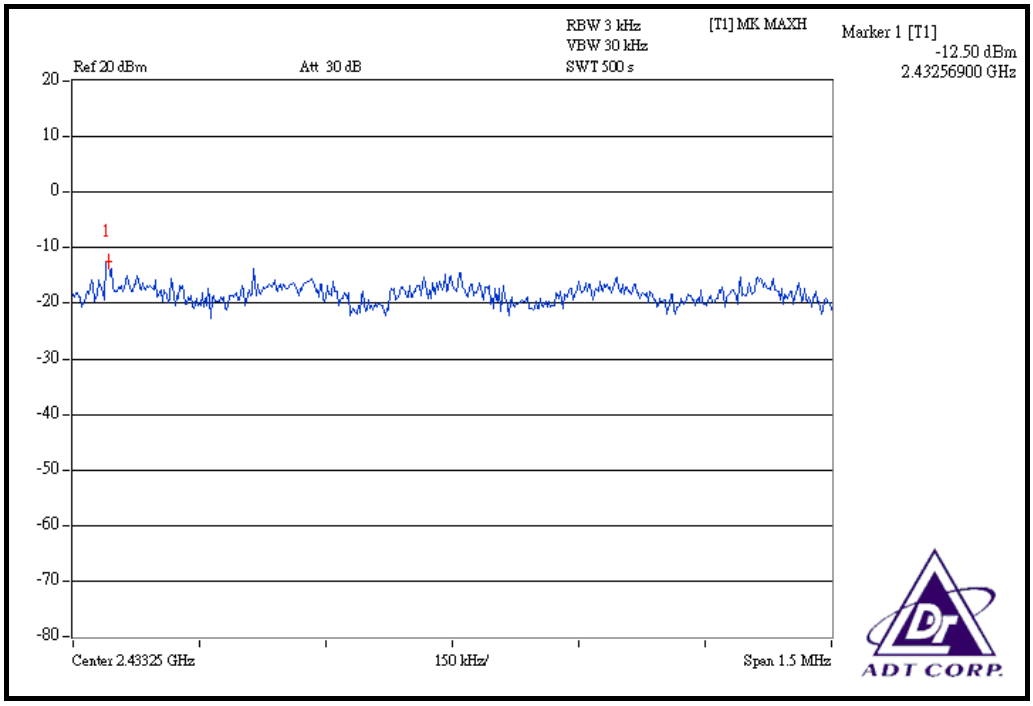
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	0.055	0.054	-12.63	-12.71	0.109	-9.63	8	PASS
6	2437	0.056	0.054	-12.50	-12.64	0.110	-9.59	8	PASS
11	2462	0.044	0.044	-13.58	-13.54	0.088	-10.56	8	PASS

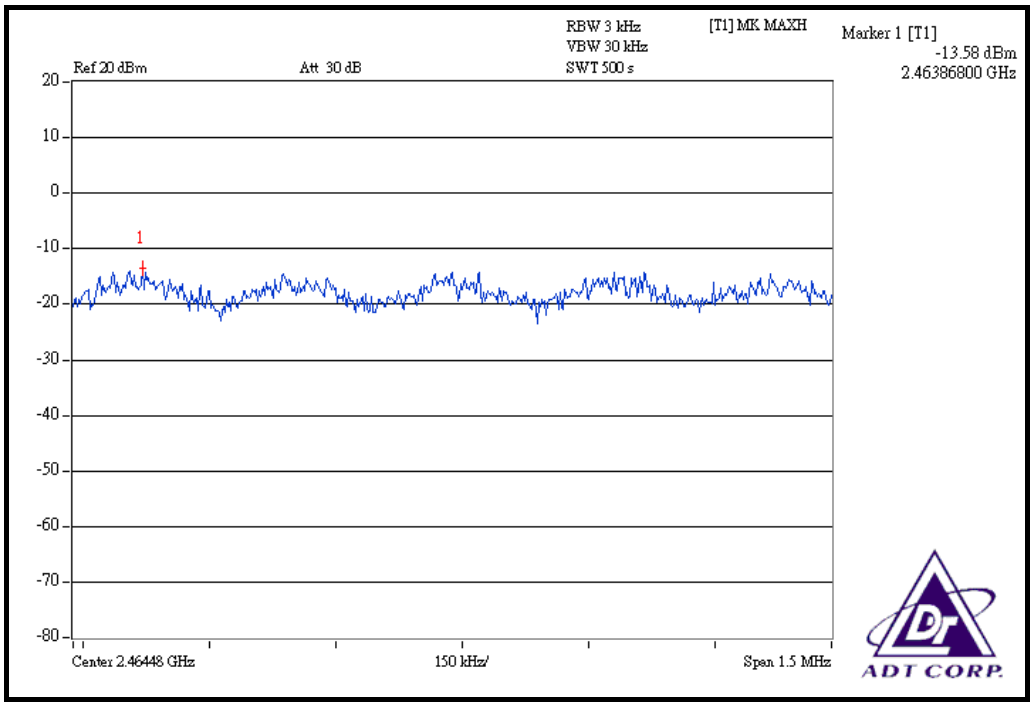
FOR CHAIN 0: CH 1



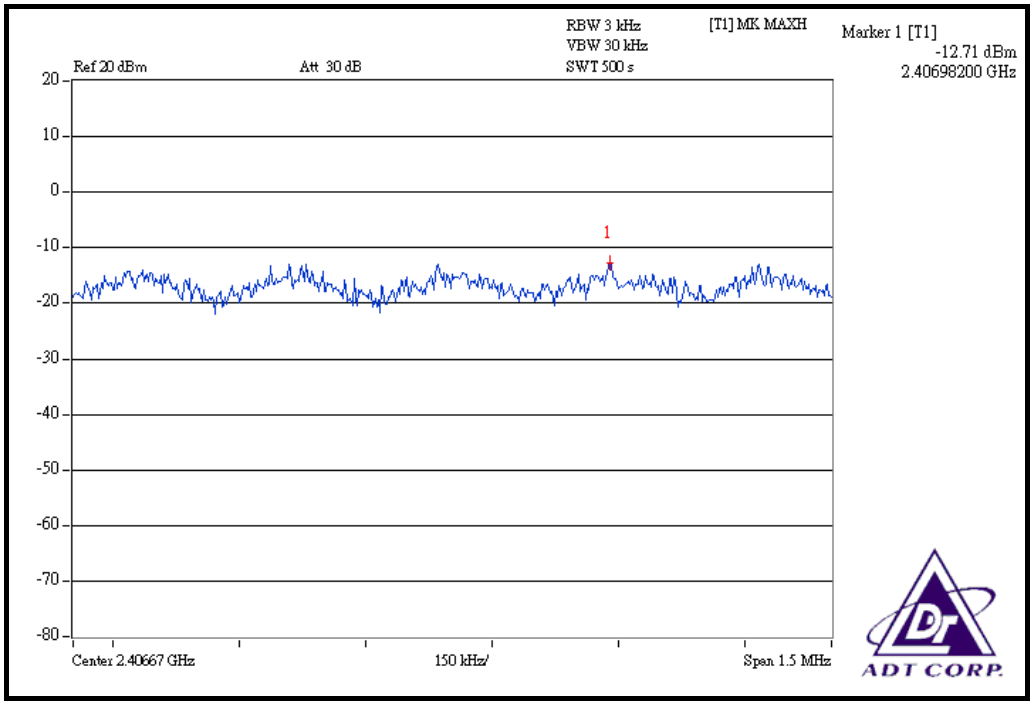
CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.50 dBm
2.43256900 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.43325 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

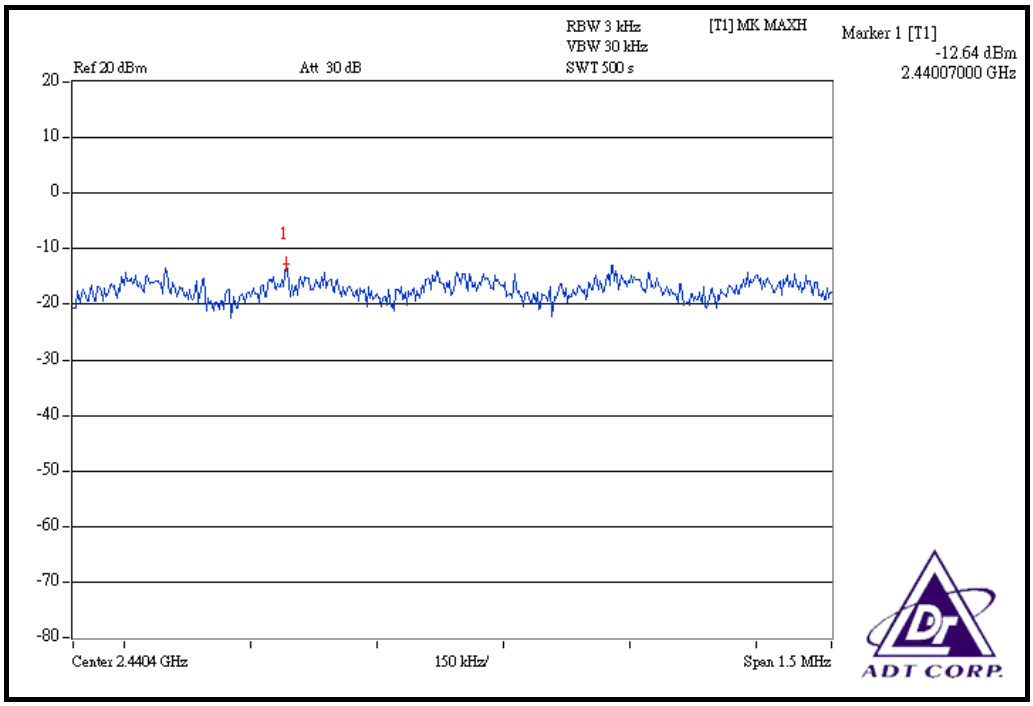
CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.58 dBm
2.46386800 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.46448 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

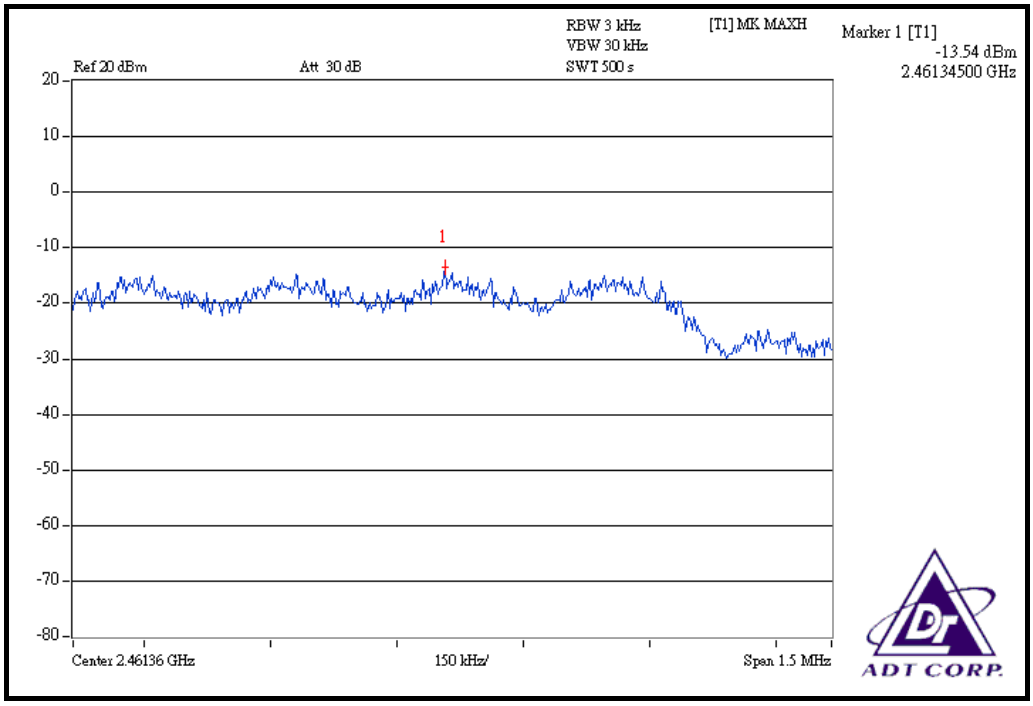
FOR CHAIN 1: CH 1



CH 6



CH 11

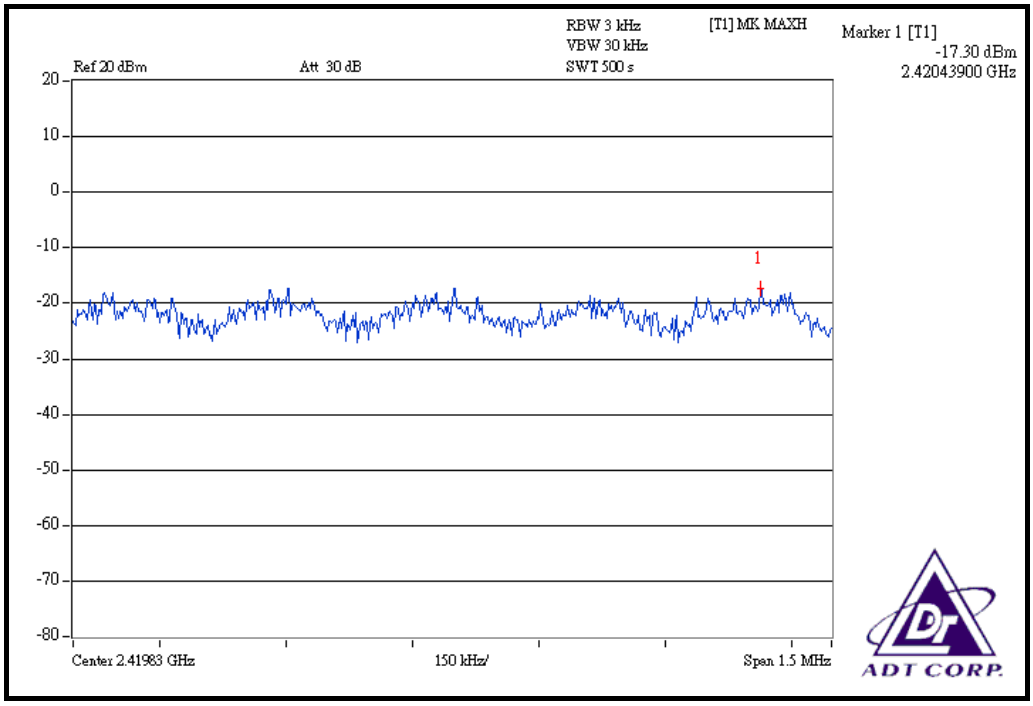

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.54 dBm
2.46134500 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.46136 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION:

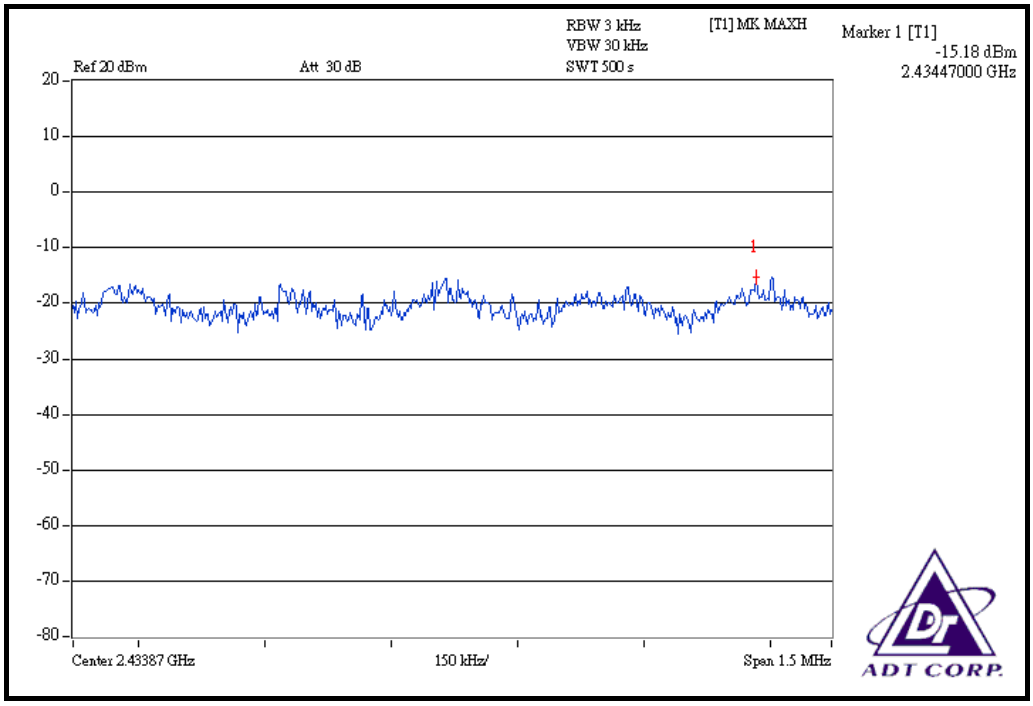
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2422	0.019	0.020	-17.30	-17.00	0.039	-14.09	8	PASS
4	2437	0.030	0.094	-15.18	-10.25	0.124	-9.07	8	PASS
7	2452	0.022	0.120	-16.50	-9.24	0.142	-8.48	8	PASS

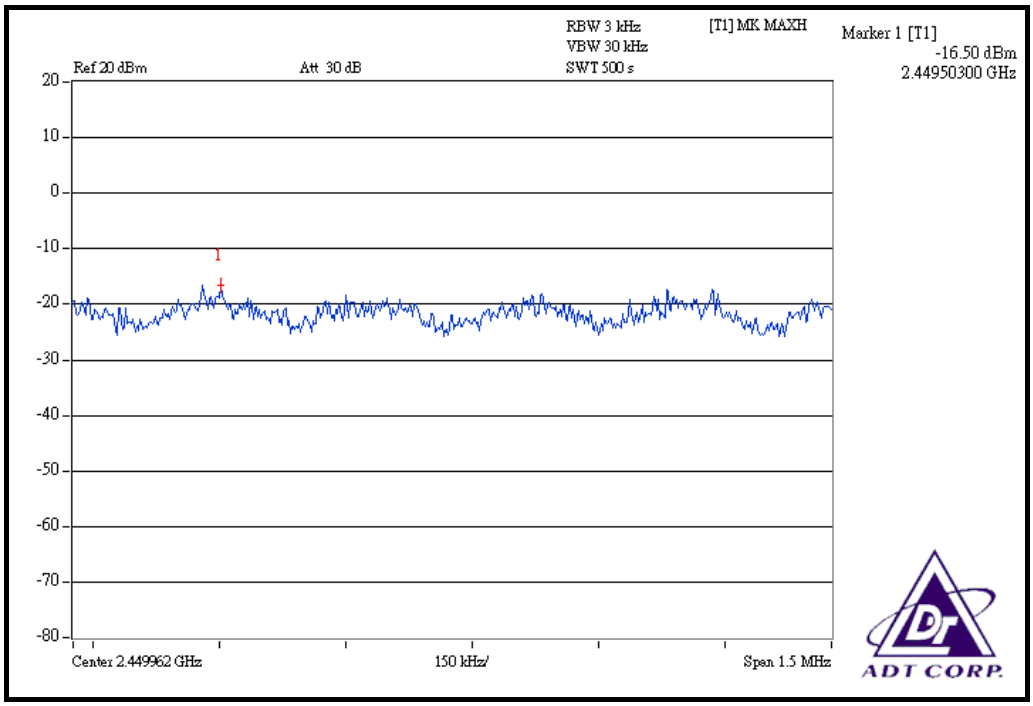
FOR CHAIN 0: CH 1



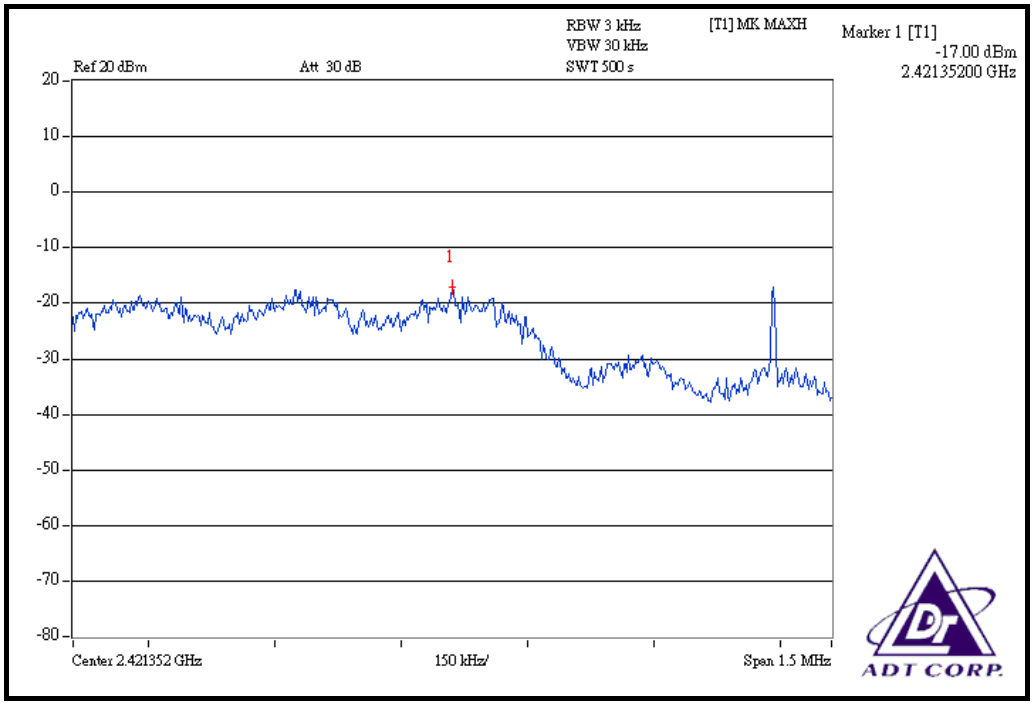
CH 4


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-15.18 dBm
2.43447000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.43387 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

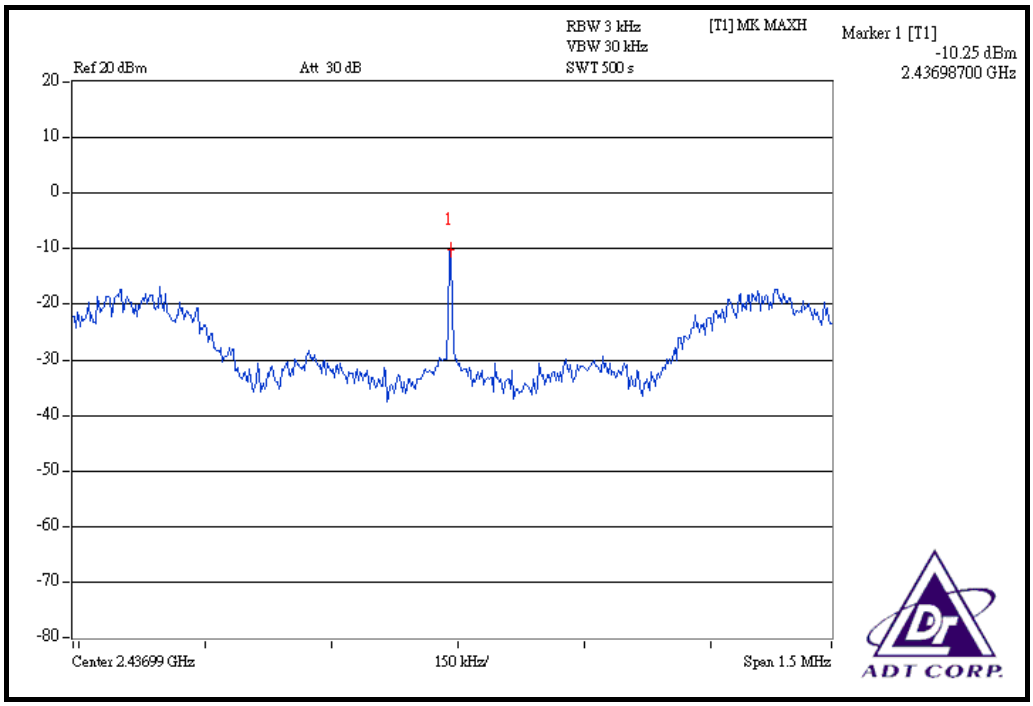
CH 7


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-16.50 dBm
2.44950300 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.449962 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

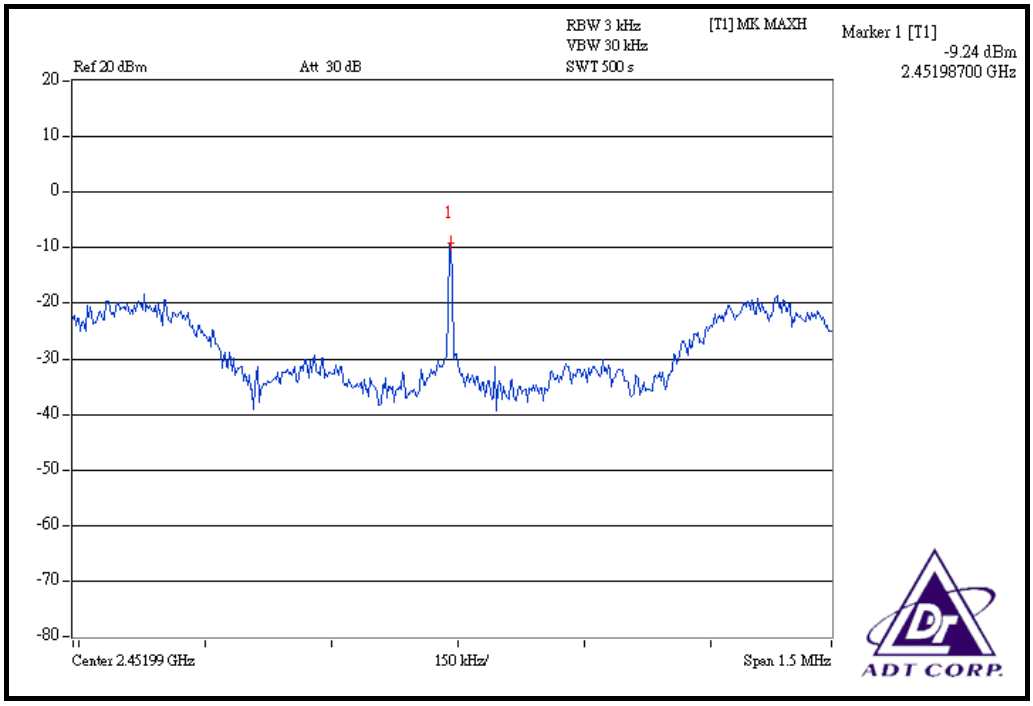
FOR CHAIN 1: CH 1



CH 4



CH 7


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-9.24 dBm
2.45198700 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.45199 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
802.11b, 802.11g:			
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008
DRAFT 802.11n (20MHz), DRAFT 802.11n (40MHz):			
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 01, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 04, 2008
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-405	Dec. 18, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 16, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	230128/4	Nov. 14, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	233233/4	Nov. 14, 2007
Software ADT.	ADT_Radiated_V7.6	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST PROCEDURE

802.11b, 802.11g:

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = VBW = 100kHz) are attached on the following pages.

DRAFT 802.11n (20MHz), DRAFT 802.11n (40MHz):

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = VBW = 100kHz) are attached on the following pages.

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6

4.6.6 TEST RESULTS

The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION

NOTE 1:

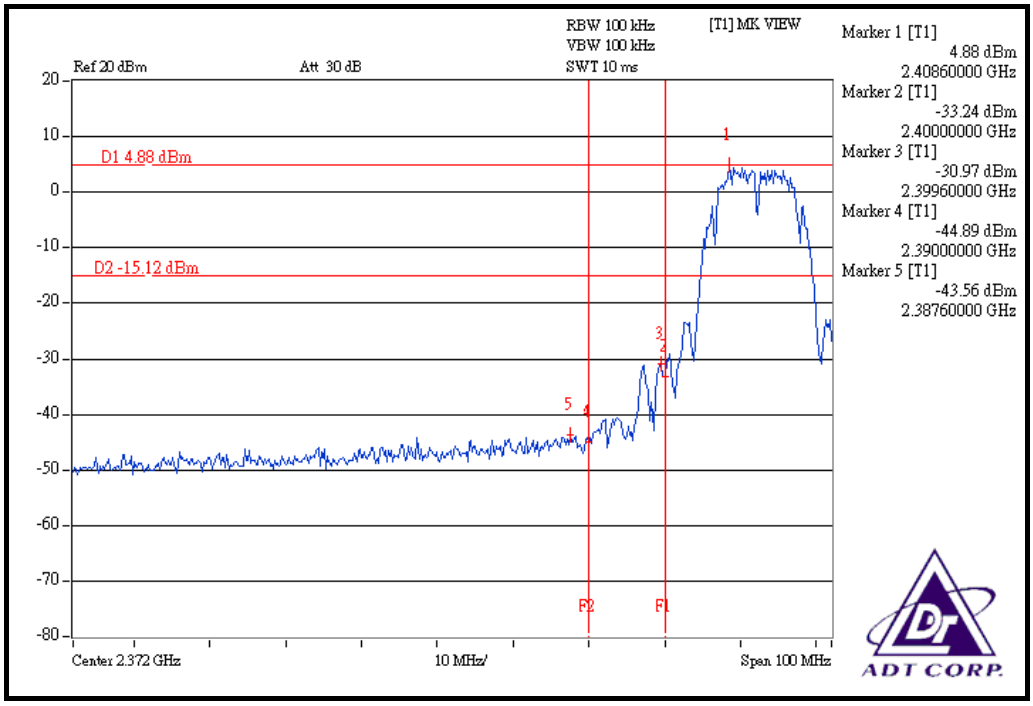
The band edge emission plot on the next page shows 48.44dBc between carrier maximum power and local maximum emission in restrict band (2.38760GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 106.82dBuV/m (Peak), so the maximum field strength in restrict band is 106.82 – 48.44 = 58.38dBuV/m which is under 74dBuV/m limit.

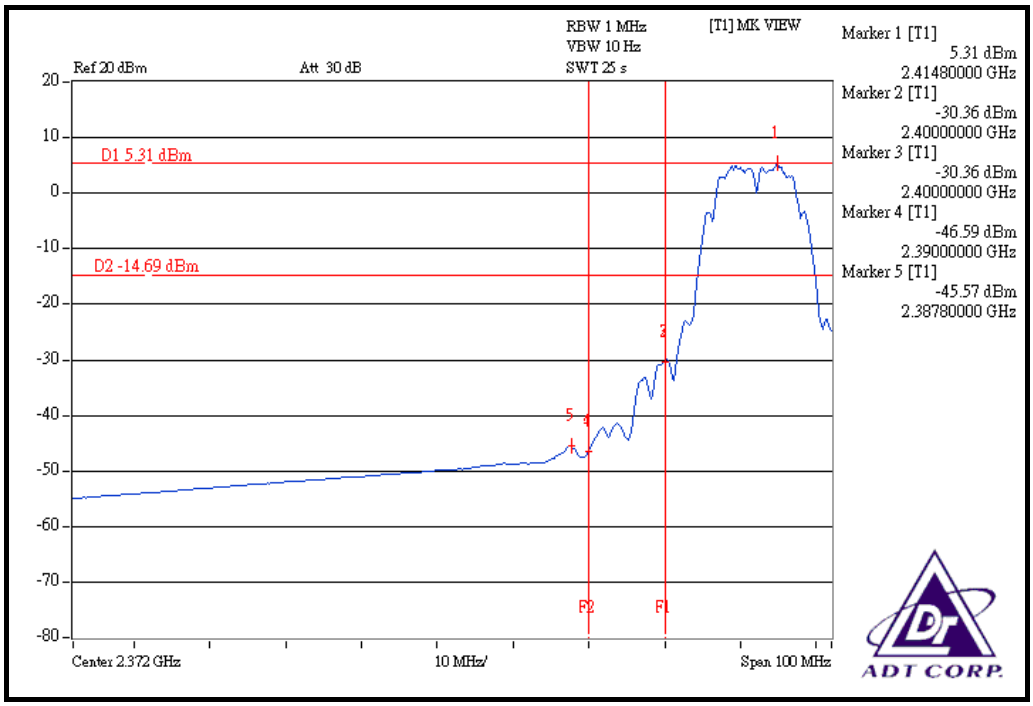
The band edge emission plot on the next page shows 50.88dBc between carrier maximum power and local maximum emission in restrict band (2.38780GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 103.70dBuV/m (Average), so the maximum field strength in restrict band is 103.70 – 50.88 = 52.82dBuV/m which is under 54dBuV/m limit.

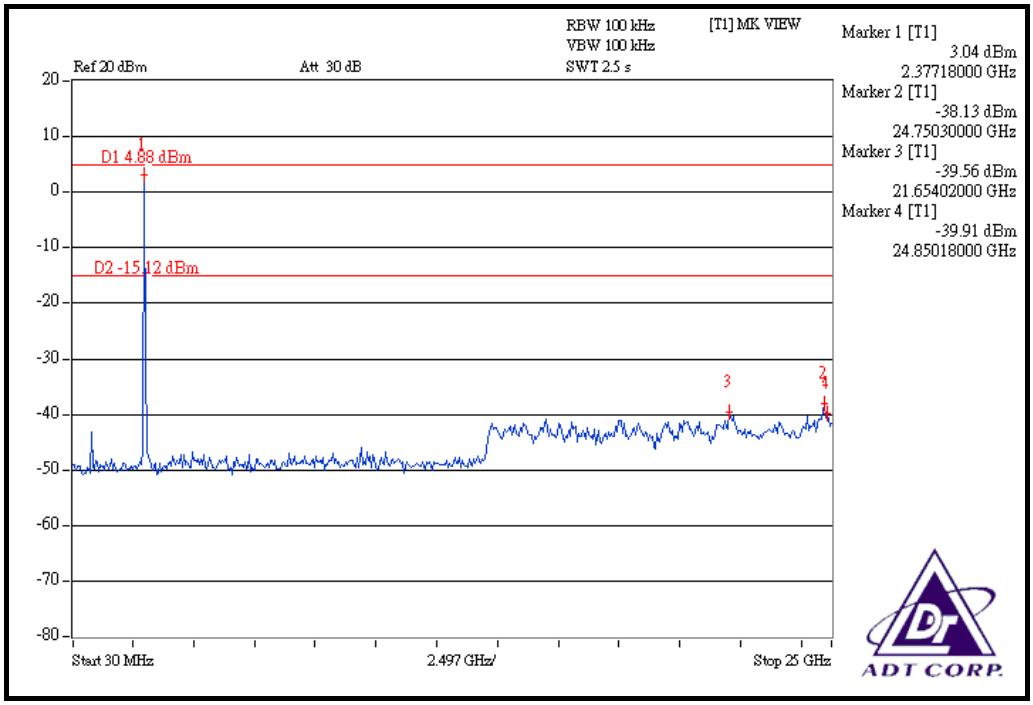
NOTE 2:

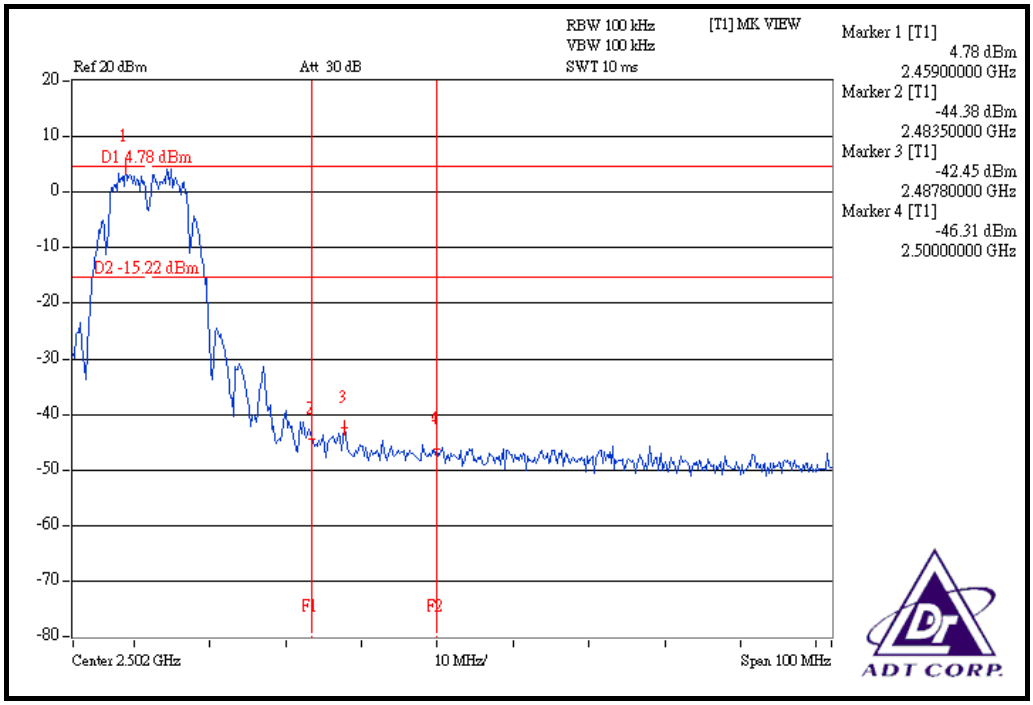
The band edge emission plot on the next second page shows 47.23dBc between carrier maximum power and local maximum emission in restrict band (2.48780GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 106.33dBuV/m (Peak), so the maximum field strength in restrict band is 106.33 – 47.23 = 59.10dBuV/m which is under 74dBuV/m limit.

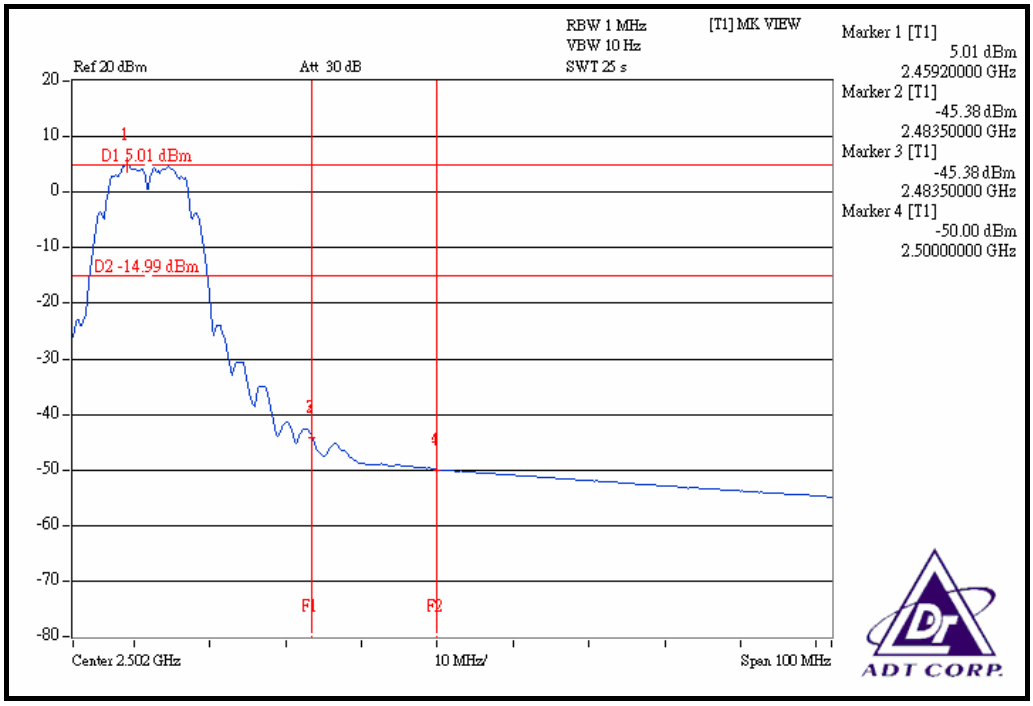
The band edge emission plot on the next third page shows 50.39dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 103.30dBuV/m (Average), so the maximum field strength in restrict band is 103.30 – 50.39 = 52.91dBuV/m which is under 54dBuV/m limit.

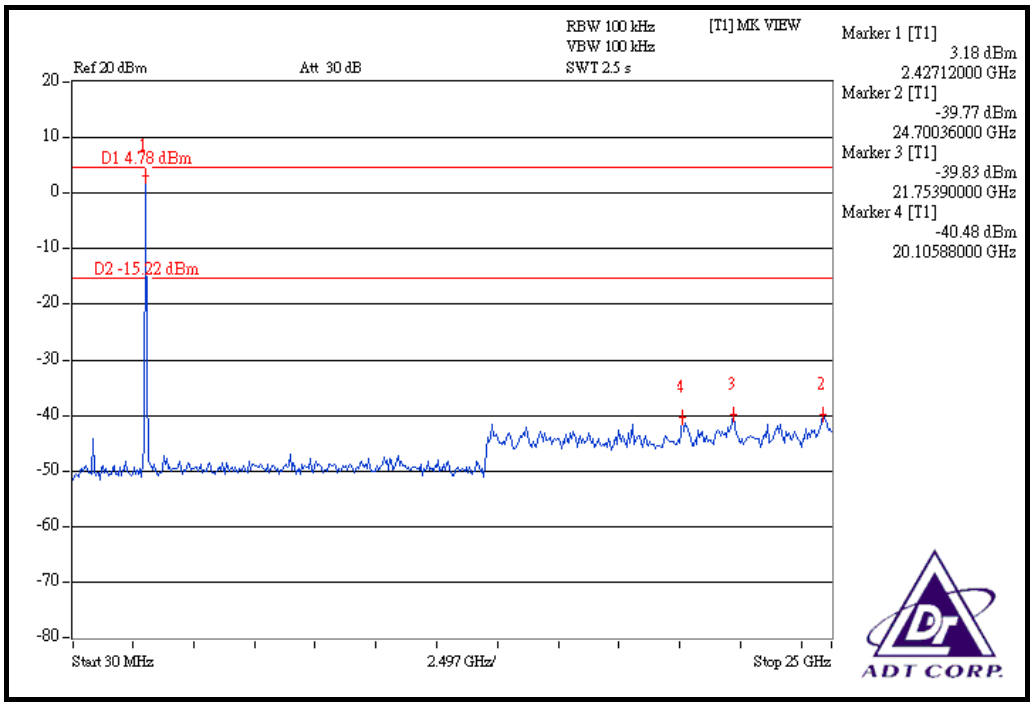

RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 4.88 dBm
D2 -15.12 dBm
Marker 1 [T1]
4.88 dBm
2.40860000 GHz
Marker 2 [T1]
-33.24 dBm
2.40000000 GHz
Marker 3 [T1]
-30.97 dBm
2.39960000 GHz
Marker 4 [T1]
-44.89 dBm
2.39000000 GHz
Marker 5 [T1]
-43.56 dBm
2.38760000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 5.31 dBm
D2 -14.69 dBm
Marker 1 [T1]
5.31 dBm
2.41480000 GHz
Marker 2 [T1]
-30.36 dBm
2.40000000 GHz
Marker 3 [T1]
-30.36 dBm
2.40000000 GHz
Marker 4 [T1]
-46.59 dBm
2.39000000 GHz
Marker 5 [T1]
-45.57 dBm
2.38780000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 4.88 dBm
D2 -15.12 dBm
Marker 1 [T1]
3.04 dBm
2.37718000 GHz
Marker 2 [T1]
-38.13 dBm
24.75030000 GHz
Marker 3 [T1]
-39.56 dBm
21.65402000 GHz
Marker 4 [T1]
-39.91 dBm
24.85018000 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 4.78 dBm
D2 -15.22 dBm
Marker 1 [T1]
4.78 dBm
2.45900000 GHz
Marker 2 [T1]
-44.38 dBm
2.48350000 GHz
Marker 3 [T1]
-42.45 dBm
2.48780000 GHz
Marker 4 [T1]
-46.31 dBm
2.50000000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 5.01 dBm
D2 -14.99 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
Marker 1 [T1]
5.01 dBm
2.45920000 GHz
Marker 2 [T1]
-45.38 dBm
2.48350000 GHz
Marker 3 [T1]
-45.38 dBm
2.48350000 GHz
Marker 4 [T1]
-50.00 dBm
2.50000000 GHz


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 4.78 dBm
D2 -15.22 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
3.18 dBm
2.42712000 GHz
Marker 2 [T1]
-39.77 dBm
24.70036000 GHz
Marker 3 [T1]
-39.83 dBm
21.75390000 GHz
Marker 4 [T1]
-40.48 dBm
20.10588000 GHz

802.11g OFDM MODULATION

NOTE 1:

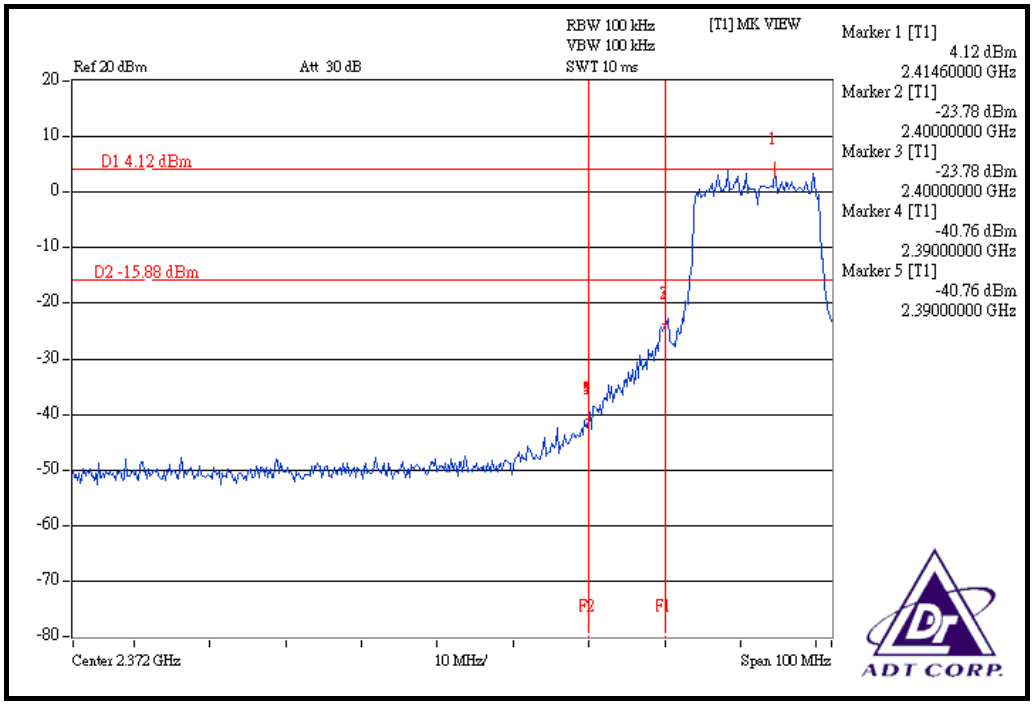
The band edge emission plot on the next page shows 44.88dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 111.09dBuV/m (Peak), so the maximum field strength in restrict band is 111.09 – 44.88 = 66.21dBuV/m which is under 74dBuV/m limit.

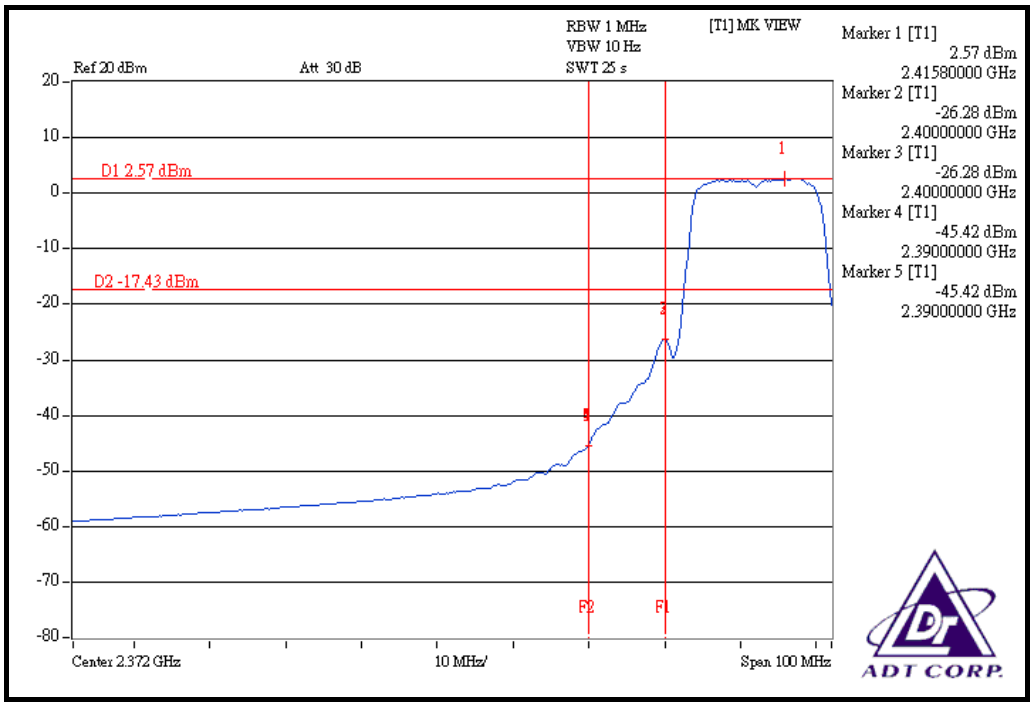
The band edge emission plot on the next page shows 47.99dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 98.88dBuV/m (Average), so the maximum field strength in restrict band is 98.88 – 47.99 = 50.89dBuV/m which is under 54dBuV/m limit.

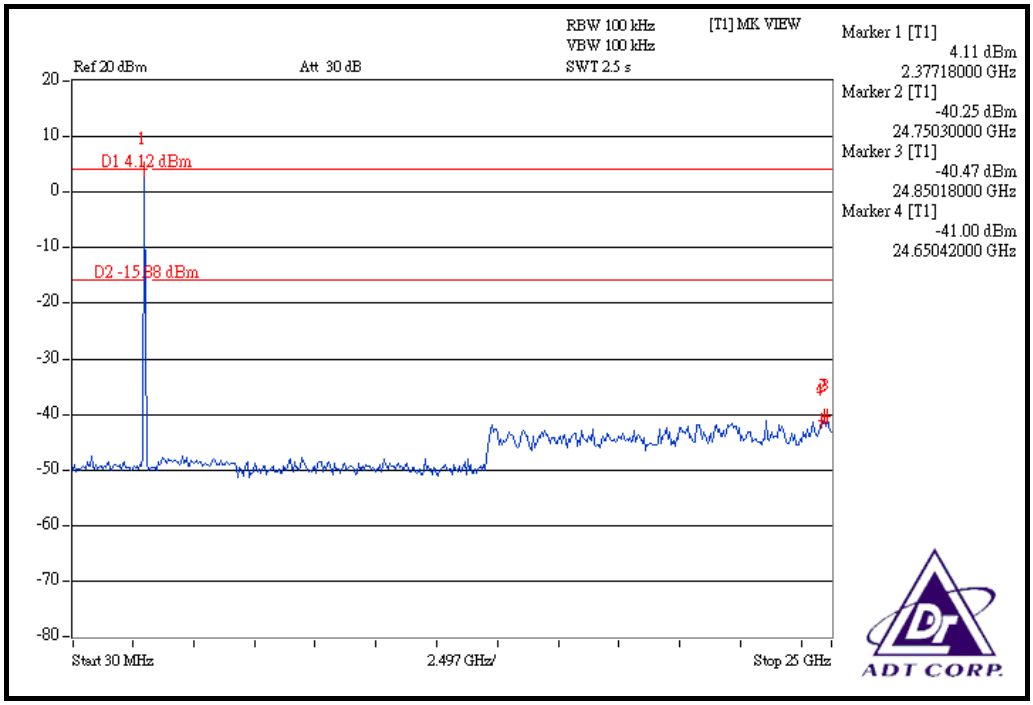
NOTE 2:

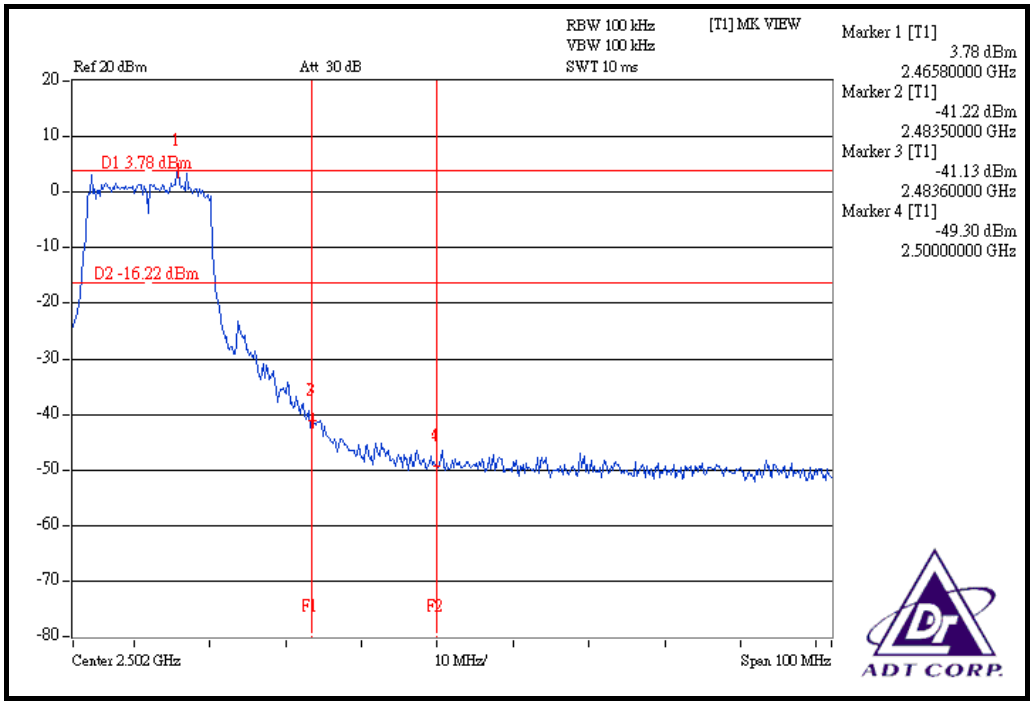
The band edge emission plot on the next second page shows 44.91dBc between carrier maximum power and local maximum emission in restrict band (2.48360GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 111.67dBuV/m (Peak), so the maximum field strength in restrict band is 111.67 – 44.91 = 66.76dBuV/m which is under 74dBuV/m limit.

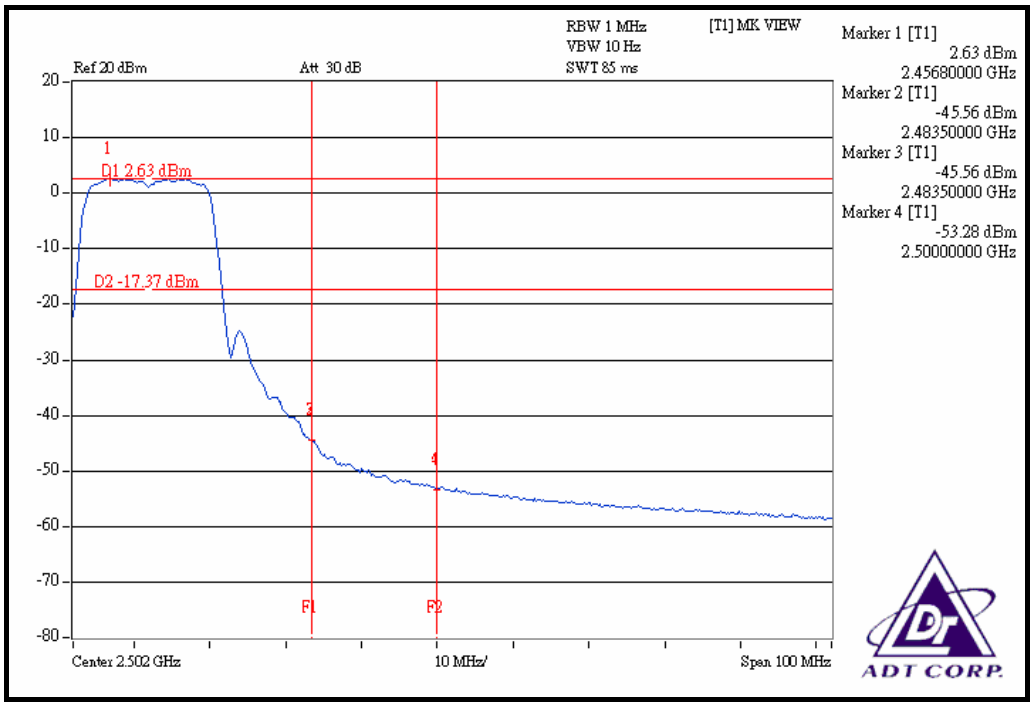
The band edge emission plot on the next third page shows 48.19dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 99.60dBuV/m (Average), so the maximum field strength in restrict band is 99.60 – 48.19 = 51.41dBuV/m which is under 54dBuV/m limit.

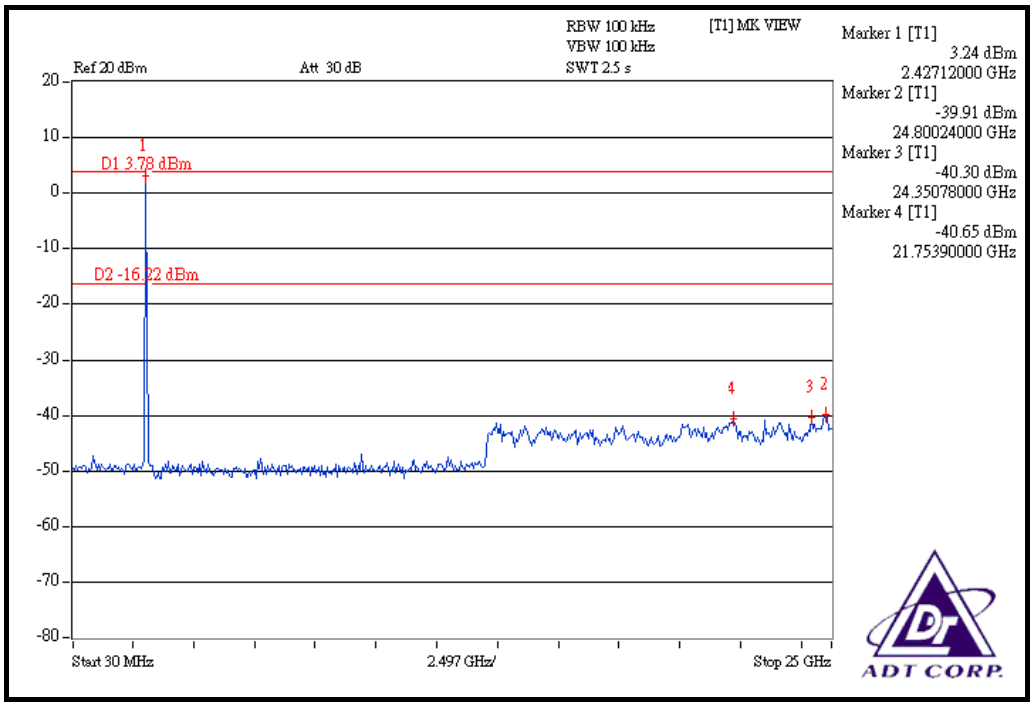

RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 4.12 dBm
D2 -15.88 dBm
Marker 1 [T1]
4.12 dBm
2.41460000 GHz
Marker 2 [T1]
-23.78 dBm
2.40000000 GHz
Marker 3 [T1]
-23.78 dBm
2.40000000 GHz
Marker 4 [T1]
-40.76 dBm
2.39000000 GHz
Marker 5 [T1]
-40.76 dBm
2.39000000 GHz
F2
F1
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 2.57 dBm
D2 -17.43 dBm
Marker 1 [T1]
2.57 dBm
2.41580000 GHz
Marker 2 [T1]
-26.28 dBm
2.40000000 GHz
Marker 3 [T1]
-26.28 dBm
2.40000000 GHz
Marker 4 [T1]
-45.42 dBm
2.39000000 GHz
Marker 5 [T1]
-45.42 dBm
2.39000000 GHz
F2
F1
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 4.12 dBm
D2 -15.88 dBm
Marker 1 [T1]
4.11 dBm
2.37718000 GHz
Marker 2 [T1]
-40.25 dBm
24.75030000 GHz
Marker 3 [T1]
-40.47 dBm
24.85018000 GHz
Marker 4 [T1]
-41.00 dBm
24.65042000 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 3.78 dBm
D2 -16.22 dBm
Marker 1 [T1]
3.78 dBm
2.46580000 GHz
Marker 2 [T1]
-41.22 dBm
2.48350000 GHz
Marker 3 [T1]
-41.13 dBm
2.48360000 GHz
Marker 4 [T1]
-49.30 dBm
2.50000000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 85 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 2.63 dBm
D2 -17.37 dBm
Marker 1 [T1]
2.63 dBm
2.45680000 GHz
Marker 2 [T1]
-45.56 dBm
2.48350000 GHz
Marker 3 [T1]
-45.56 dBm
2.48350000 GHz
Marker 4 [T1]
-53.28 dBm
2.50000000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 3.78 dBm
D2 -16.22 dBm
Marker 1 [T1]
3.24 dBm
2.42712000 GHz
Marker 2 [T1]
-39.91 dBm
24.80024000 GHz
Marker 3 [T1]
-40.30 dBm
24.35078000 GHz
Marker 4 [T1]
-40.65 dBm
21.75390000 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION:

NOTE 1:

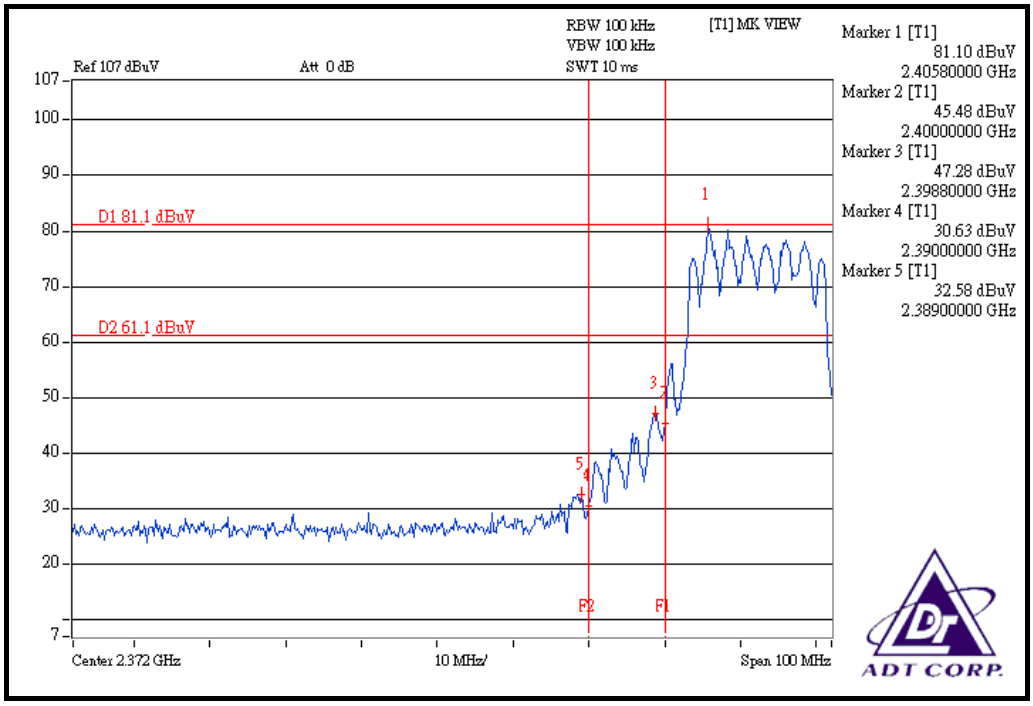
The band edge emission plot on the next page shows 48.52dBc between carrier maximum power and local maximum emission in restrict band (2.38900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 112.52dBuV/m (Peak), so the maximum field strength in restrict band is 112.52 – 48.52 = 64.00dBuV/m which is under 74dBuV/m limit.

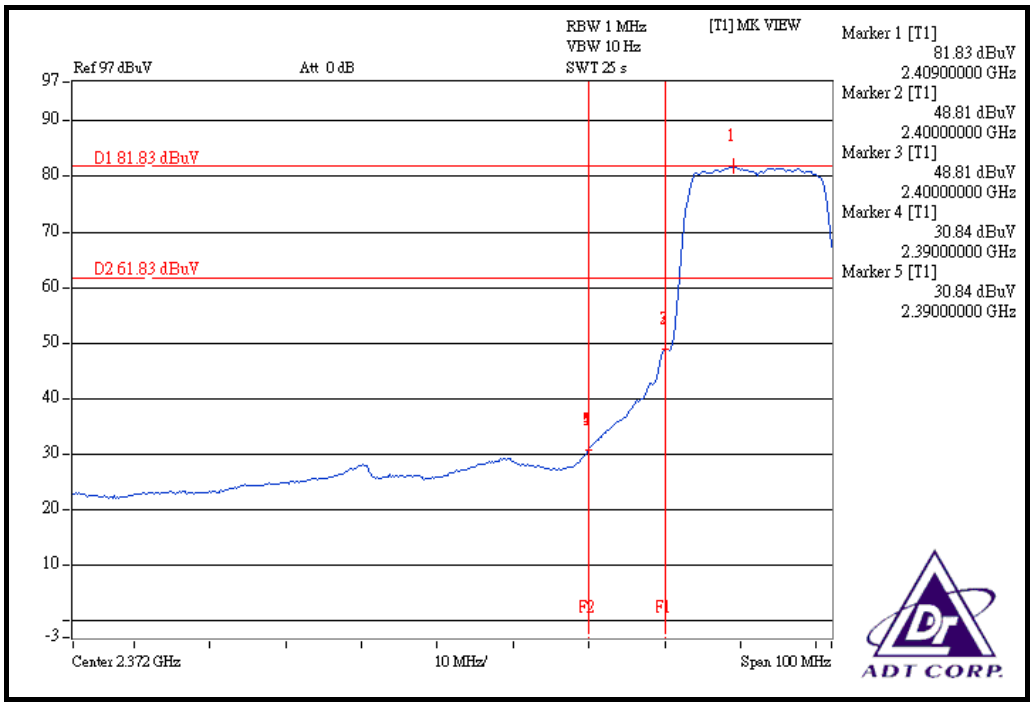
The band edge emission plot on the next page shows 50.99dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 100.25dBuV/m (Average), so the maximum field strength in restrict band is 100.25 – 50.99 = 49.26dBuV/m which is under 54dBuV/m limit.

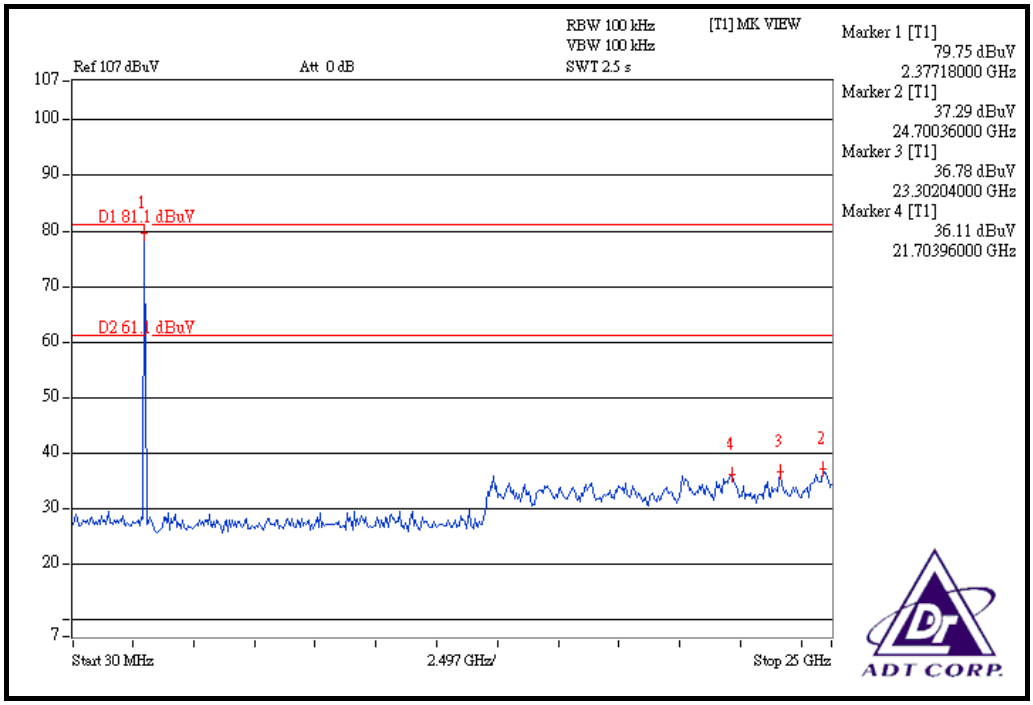
NOTE 2:

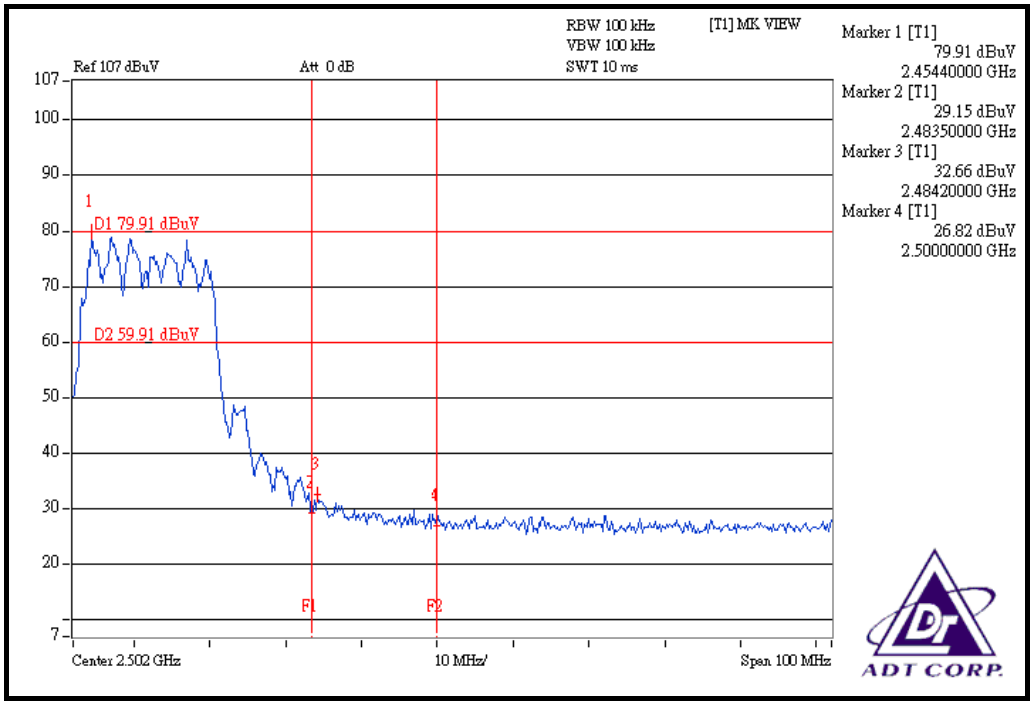
The band edge emission plot on the next second page shows 47.25dBc between carrier maximum power and local maximum emission in restrict band (2.48420GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 112.26dBuV/m (Peak), so the maximum field strength in restrict band is 112.26 – 47.25 = 65.01dBuV/m which is under 74dBuV/m limit.

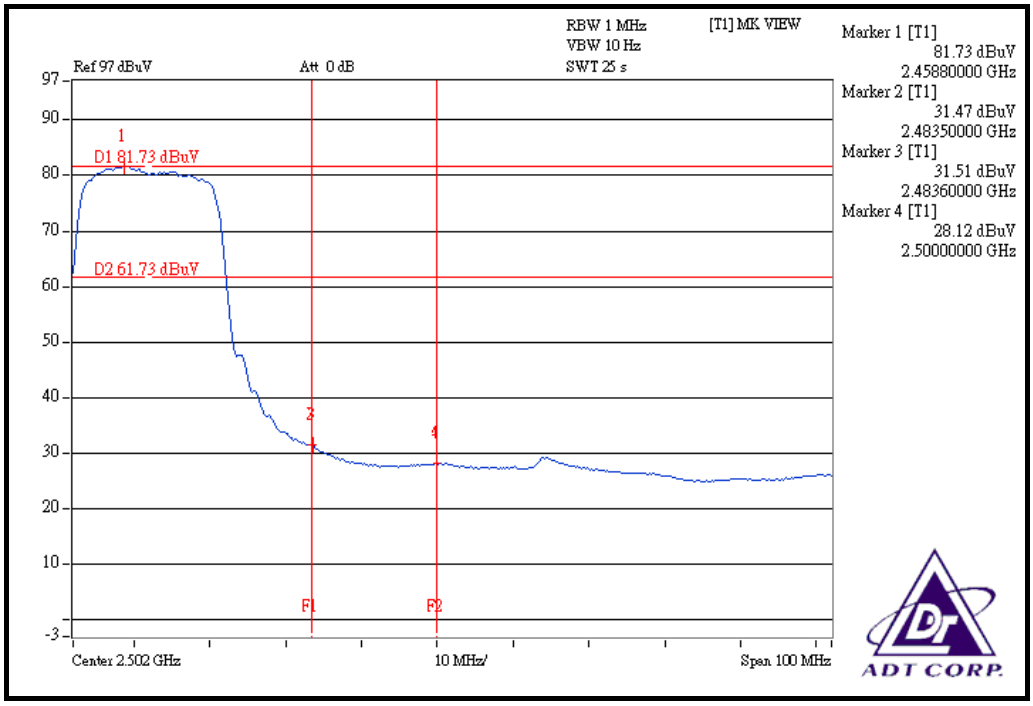
The band edge emission plot on the next third page shows 50.22dBc between carrier maximum power and local maximum emission in restrict band (2.48360GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 100.04dBuV/m (Average), so the maximum field strength in restrict band is 100.04 – 50.22 = 49.82dBuV/m which is under 54dBuV/m limit.

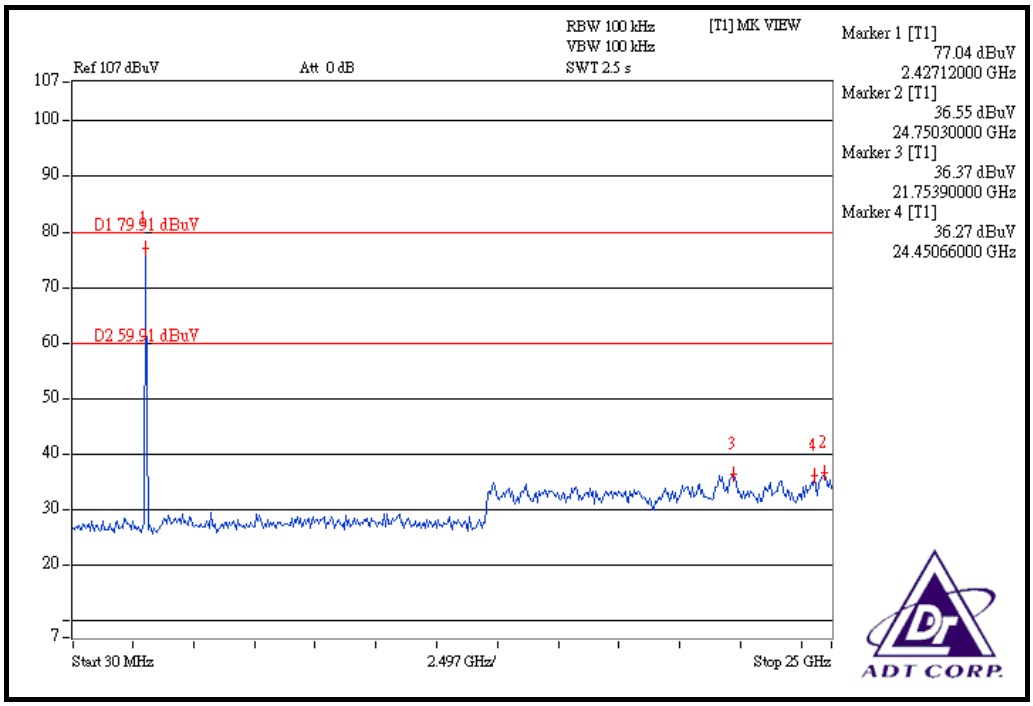

RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
D1 81.1 dBuV
D2 61.1 dBuV
Marker 1 [T1]
81.10 dBuV
2.40580000 GHz
Marker 2 [T1]
45.48 dBuV
2.40000000 GHz
Marker 3 [T1]
47.28 dBuV
2.39880000 GHz
Marker 4 [T1]
30.63 dBuV
2.39000000 GHz
Marker 5 [T1]
32.58 dBuV
2.38900000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.83 dBuV
D2 61.83 dBuV
Marker 1 [T1]
81.83 dBuV
2.40900000 GHz
Marker 2 [T1]
48.81 dBuV
2.40000000 GHz
Marker 3 [T1]
48.81 dBuV
2.40000000 GHz
Marker 4 [T1]
30.84 dBuV
2.39000000 GHz
Marker 5 [T1]
30.84 dBuV
2.39000000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
Marker 1 [T1]
79.75 dBuV
2.37718000 GHz
Marker 2 [T1]
37.29 dBuV
24.70036000 GHz
Marker 3 [T1]
36.78 dBuV
23.30204000 GHz
Marker 4 [T1]
36.11 dBuV
21.70396000 GHz
D1 81.1 dBuV
D2 61.1 dBuV
107
100
90
80
70
60
50
40
30
20
7
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 10 ms
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
Marker 1 [T1]
79.91 dBuV
2.45440000 GHz
Marker 2 [T1]
29.15 dBuV
2.48350000 GHz
Marker 3 [T1]
32.66 dBuV
2.48420000 GHz
Marker 4 [T1]
26.82 dBuV
2.50000000 GHz
D1 79.91 dBuV
D2 59.91 dBuV
F1
F2
107
100
90
80
70
60
50
40
30
20
7
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.73 dBuV
D2 61.73 dBuV
Marker 1 [T1]
81.73 dBuV
2.45880000 GHz
Marker 2 [T1]
31.47 dBuV
2.48350000 GHz
Marker 3 [T1]
31.51 dBuV
2.48360000 GHz
Marker 4 [T1]
28.12 dBuV
2.50000000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
D1 79.91 dBuV
D2 59.91 dBuV
Marker 1 [T1]
77.04 dBuV
2.42712000 GHz
Marker 2 [T1]
36.55 dBuV
24.75030000 GHz
Marker 3 [T1]
36.37 dBuV
21.75390000 GHz
Marker 4 [T1]
36.27 dBuV
24.45066000 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

DRAFT 802.11n (40MHz) OFDM MODULATION:

NOTE 1:

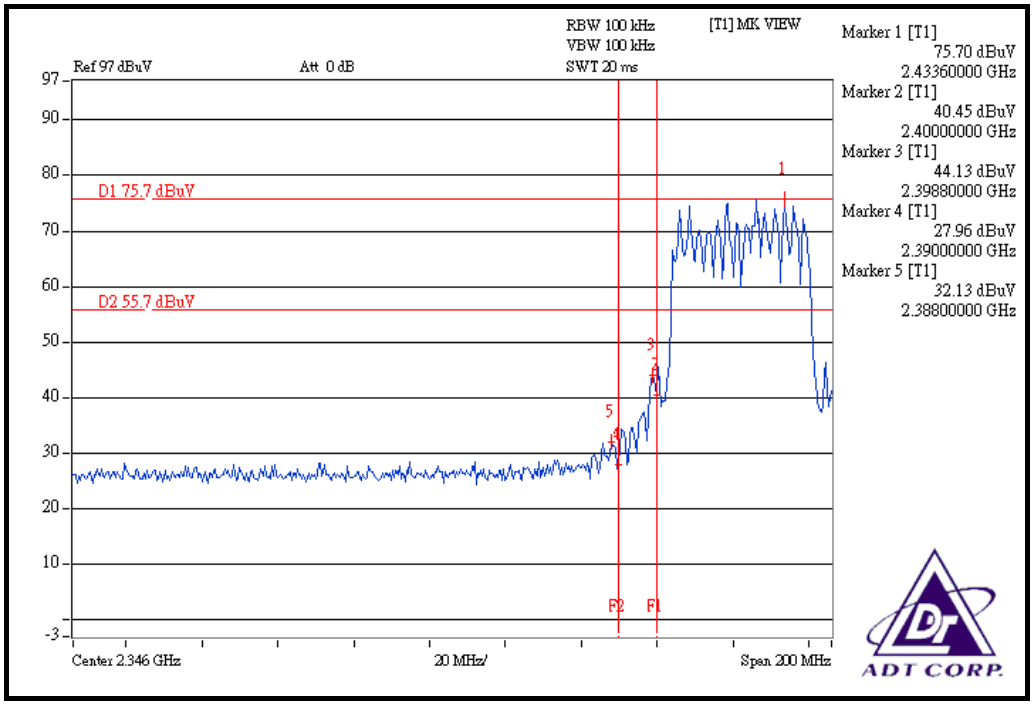
The band edge emission plot on the next page shows 43.57dBc between carrier maximum power and local maximum emission in restrict band (2.38800GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 107.27dBuV/m (Peak), so the maximum field strength in restrict band is 107.27 – 43.57 = 63.70dBuV/m which is under 74dBuV/m limit.

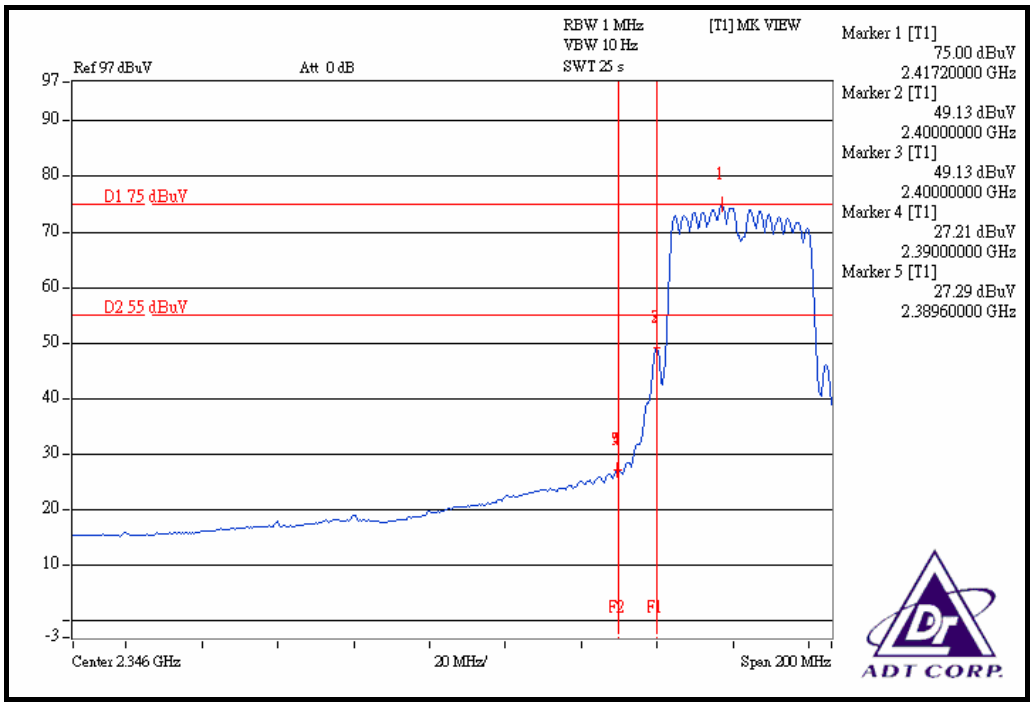
The band edge emission plot on the next page shows 47.71dBc between carrier maximum power and local maximum emission in restrict band (2.38960GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 94.40dBuV/m (Average), so the maximum field strength in restrict band is 94.40 – 47.71 = 46.69dBuV/m which is under 54dBuV/m limit.

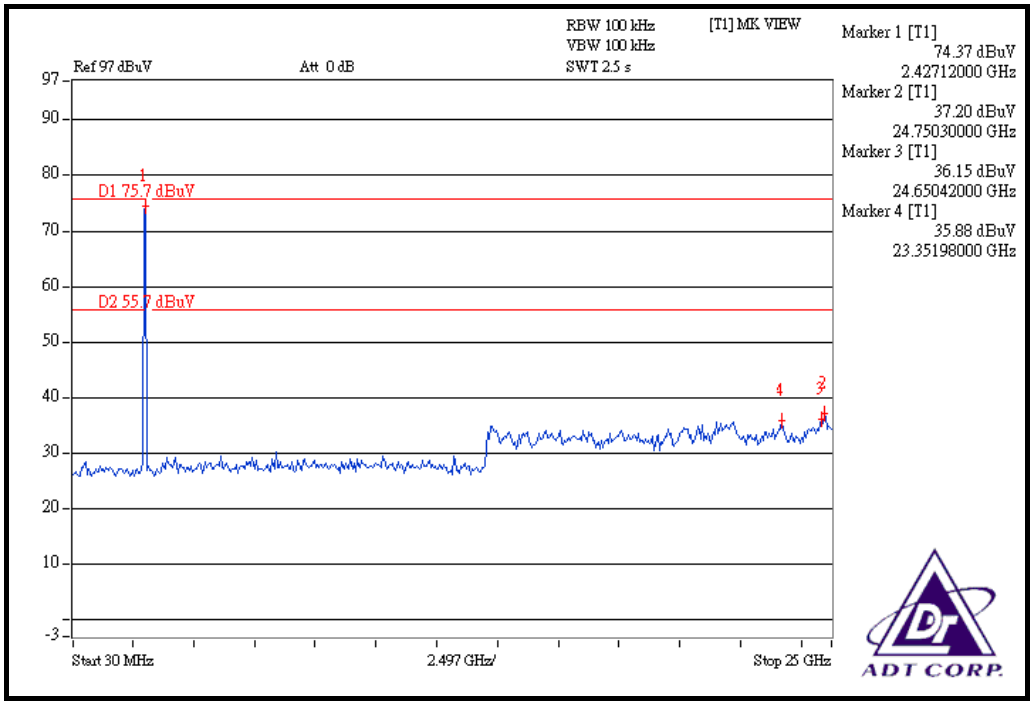
NOTE 2:

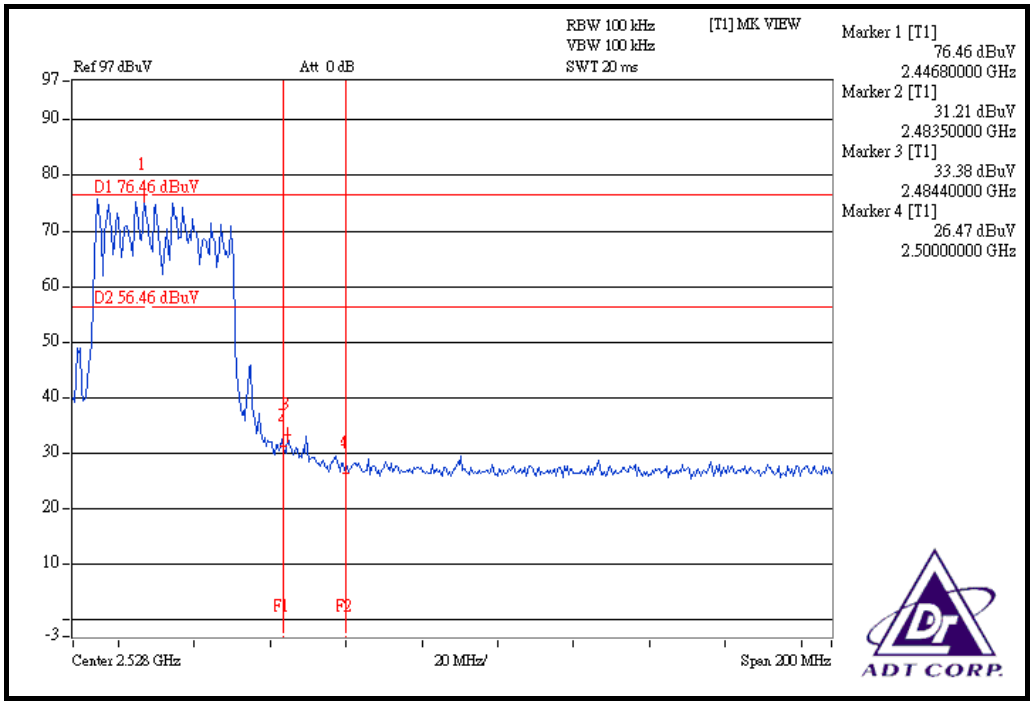
The band edge emission plot on the next second page shows 43.08dBc between carrier maximum power and local maximum emission in restrict band (2.48440GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.2.7 is 107.51dBuV/m (Peak), so the maximum field strength in restrict band is 107.51 – 43.08 = 64.43dBuV/m which is under 74dBuV/m limit.

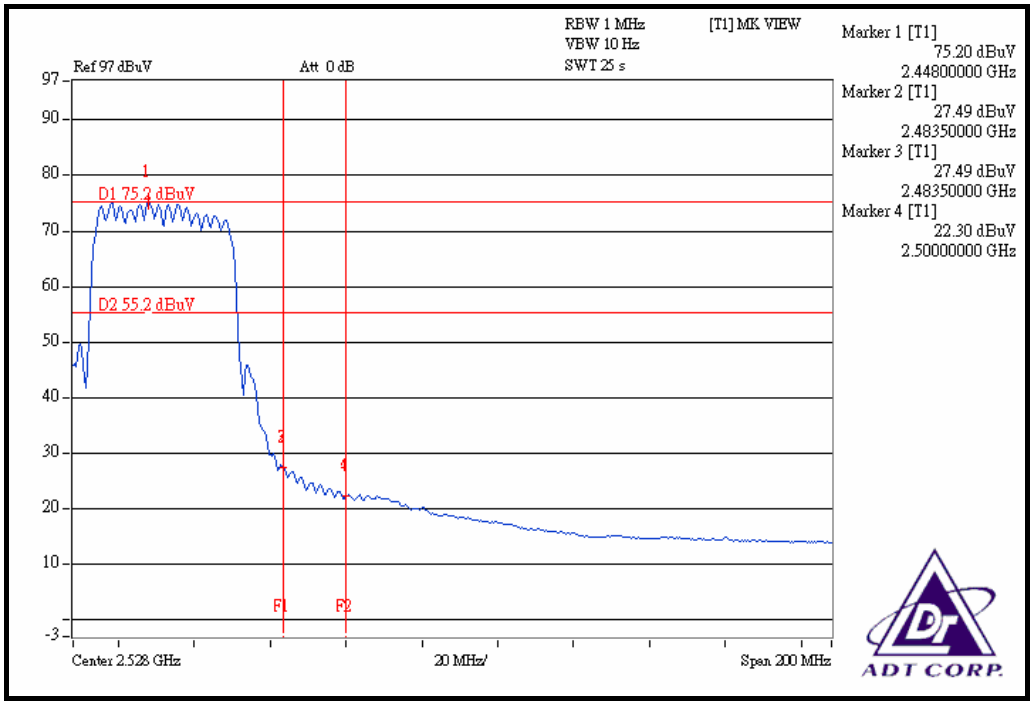
The band edge emission plot on the next third page shows 47.71dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.2.7 is 95.02dBuV/m (Average), so the maximum field strength in restrict band is 95.02 – 47.71 = 47.31dBuV/m which is under 54dBuV/m limit.

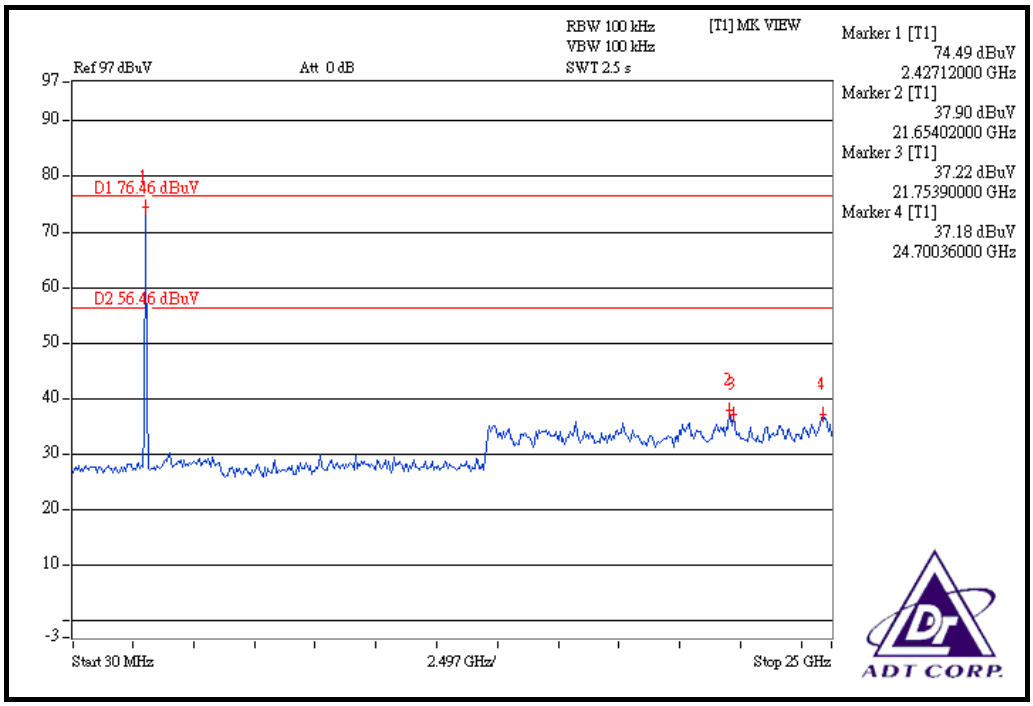

RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.7 dBuV
D2 55.7 dBuV
Center 2.346 GHz
20 MHz/
Span 200 MHz
Marker 1 [T1]
75.70 dBuV
2.43360000 GHz
Marker 2 [T1]
40.45 dBuV
2.40000000 GHz
Marker 3 [T1]
44.13 dBuV
2.39880000 GHz
Marker 4 [T1]
27.96 dBuV
2.39000000 GHz
Marker 5 [T1]
32.13 dBuV
2.38800000 GHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75 dBuV
D2 55 dBuV
Center 2.346 GHz
20 MHz/
Span 200 MHz
Marker 1 [T1]
75.00 dBuV
2.41720000 GHz
Marker 2 [T1]
49.13 dBuV
2.40000000 GHz
Marker 3 [T1]
49.13 dBuV
2.40000000 GHz
Marker 4 [T1]
27.21 dBuV
2.39000000 GHz
Marker 5 [T1]
27.29 dBuV
2.38960000 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.7 dBuV
D2 55.7 dBuV
Marker 1 [T1]
74.37 dBuV
2.42712000 GHz
Marker 2 [T1]
37.20 dBuV
24.75030000 GHz
Marker 3 [T1]
36.15 dBuV
24.65042000 GHz
Marker 4 [T1]
35.88 dBuV
23.35198000 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.46 dBuV
D2 56.46 dBuV
Marker 1 [T1]
76.46 dBuV
2.44680000 GHz
Marker 2 [T1]
31.21 dBuV
2.48350000 GHz
Marker 3 [T1]
33.38 dBuV
2.48440000 GHz
Marker 4 [T1]
26.47 dBuV
2.50000000 GHz
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.2 dBuV
D2 55.2 dBuV
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
Marker 1 [T1]
75.20 dBuV
2.44800000 GHz
Marker 2 [T1]
27.49 dBuV
2.48350000 GHz
Marker 3 [T1]
27.49 dBuV
2.48350000 GHz
Marker 4 [T1]
22.30 dBuV
2.50000000 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.46 dBuV
D2 56.46 dBuV
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
74.49 dBuV
2.42712000 GHz
Marker 2 [T1]
37.90 dBuV
21.65402000 GHz
Marker 3 [T1]
37.22 dBuV
21.75390000 GHz
Marker 4 [T1]
37.18 dBuV
24.70036000 GHz
ADT CORP.

4.7 ANTENNA REQUIREMENT

4.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is PIFA antenna without connector. The maximum Gain of the antenna is 2.7dBi.

5. TEST TYPES AND RESULTS (FOR 5.0GHz)

5.1 CONDUCTED EMISSION MEASUREMENT

5.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

5.1.2 T EST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Sep. 25, 2007
RF signal cable Woken	5D-FB	Cable-HYCO3-01	Jan. 06, 2008
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 08, 2008
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 16, 2008
Software ADT	ADT_Cond_V3	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

5.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

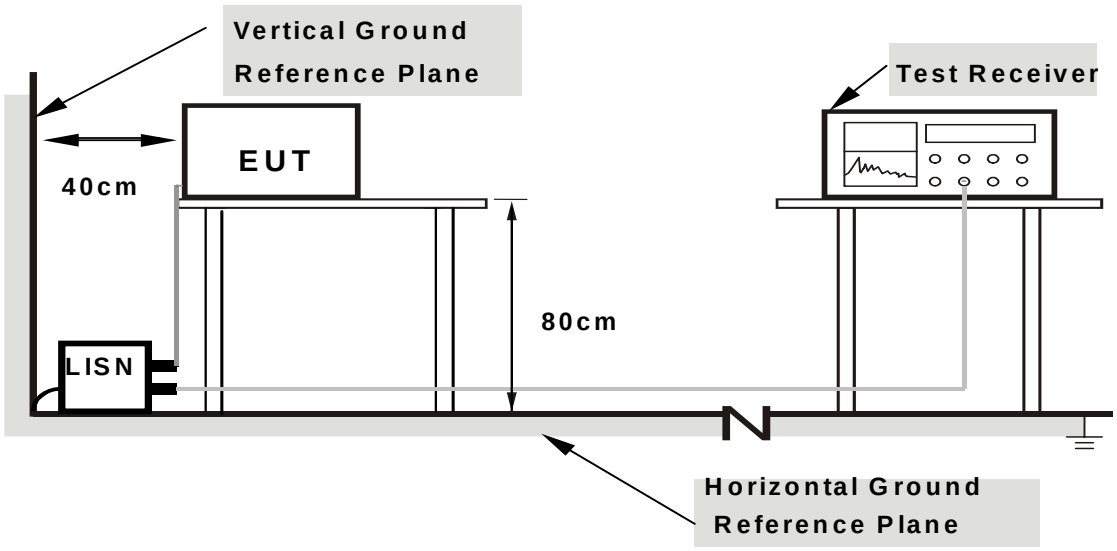
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

5.1.4 DEVIATION FROM TEST STANDARD

No deviation

5.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

5.1.6 EUT OPERATING CONDITIONS

Same as 4.1.6

5.1.7 TEST RESULTS

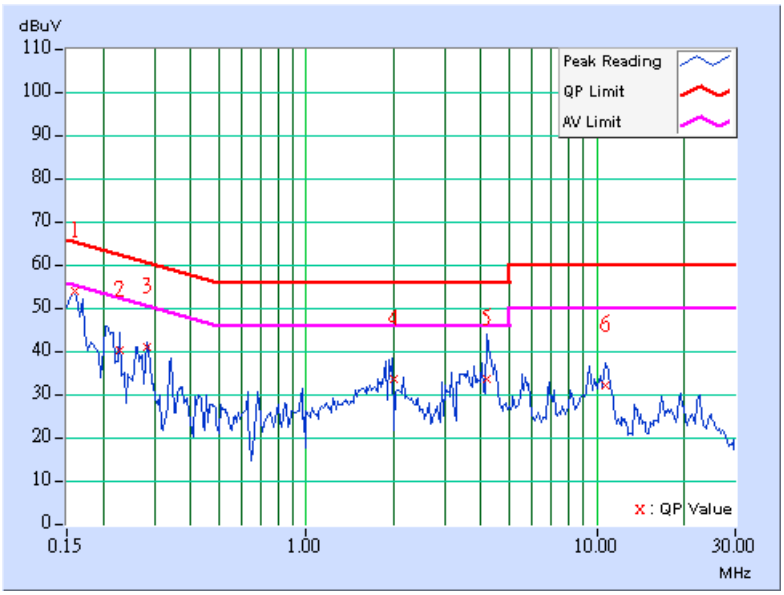
CONDUCTED WORST-CASE DATA: 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**PHASE**	Line 1
MODULATION TYPE	BPSK	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	**6dB BANDWIDTH**	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	**TESTED BY**	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.159	0.10	53.85	-	53.95	-	65.52	55.52	-11.57	-
2	0.229	0.10	40.17	-	40.27	-	62.49	52.49	-22.22	-
3	0.285	0.10	40.90	-	41.00	-	60.68	50.68	-19.68	-
4	1.996	0.22	33.19	-	33.41	-	56.00	46.00	-22.59	-
5	4.213	0.28	33.26	-	33.54	-	56.00	46.00	-22.46	-
6	10.780	0.35	31.77	-	32.12	-	60.00	50.00	-27.88	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

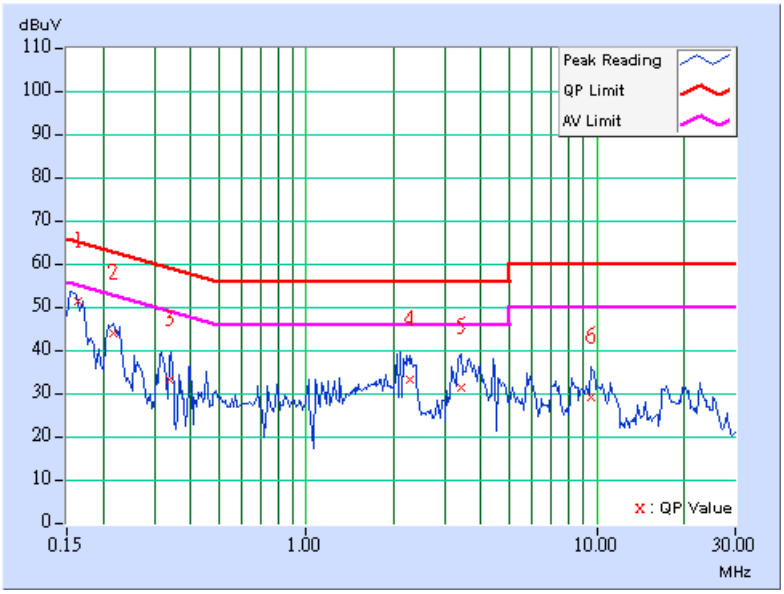


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.164	0.10	50.96	-	51.06	-	65.28	55.28	-14.22	-
2	0.216	0.10	43.57	-	43.67	-	62.96	52.96	-19.29	-
3	0.340	0.10	32.75	-	32.85	-	59.21	49.21	-26.36	-
4	2.270	0.23	32.86	-	33.09	-	56.00	46.00	-22.91	-
5	3.405	0.26	30.99	-	31.25	-	56.00	46.00	-24.75	-
6	9.598	0.42	28.96	-	29.38	-	60.00	50.00	-30.62	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.



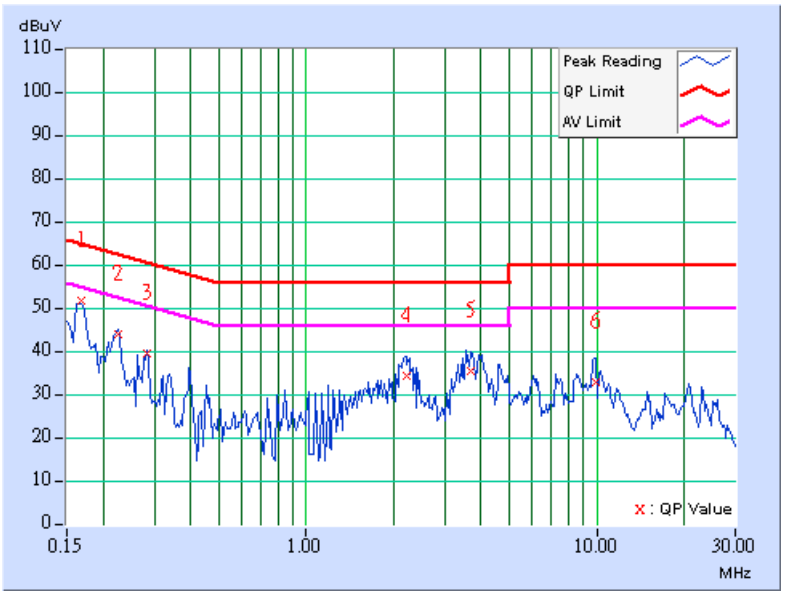
DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.169	0.10	51.52	-	51.62	-	65.03	55.03	-13.41	-
2	0.224	0.10	43.60	-	43.70	-	62.66	52.66	-18.96	-
3	0.284	0.10	39.39	-	39.49	-	60.71	50.71	-21.22	-
4	2.207	0.23	34.26	-	34.49	-	56.00	46.00	-21.51	-
5	3.685	0.27	35.25	-	35.52	-	56.00	46.00	-20.48	-
6	9.970	0.33	32.45	-	32.78	-	60.00	50.00	-27.22	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

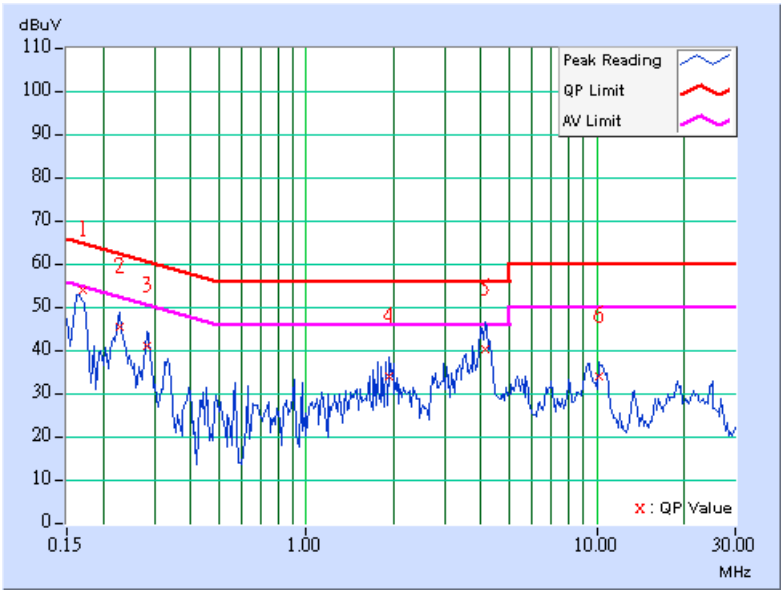


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	53.75	-	53.85	-	64.97	54.97	-11.12	-
2	0.228	0.10	45.08	-	45.18	-	62.52	52.52	-17.34	-
3	0.284	0.10	40.63	-	40.73	-	60.71	50.71	-19.98	-
4	1.935	0.22	33.69	-	33.91	-	56.00	46.00	-22.09	-
5	4.148	0.28	39.96	-	40.24	-	56.00	46.00	-15.76	-
6	10.170	0.43	33.57	-	34.00	-	60.00	50.00	-26.00	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.



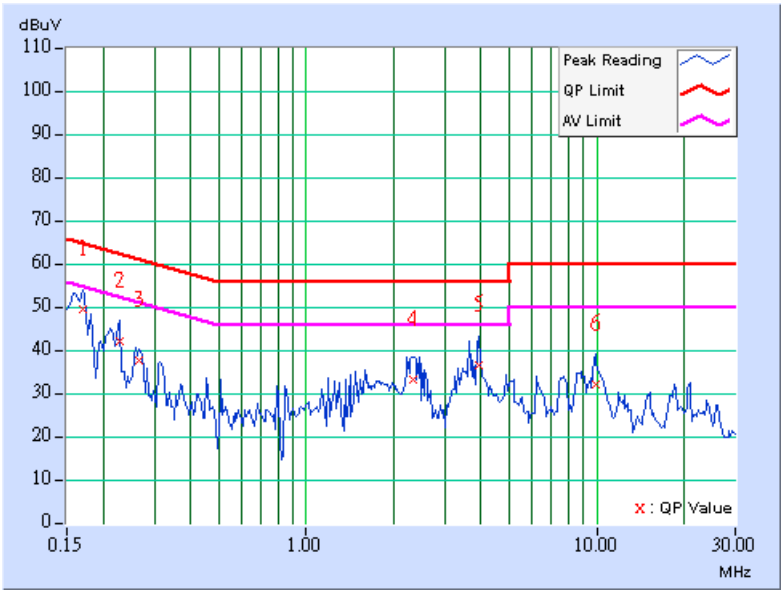
DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.171	0.10	49.47	-	49.57	-	64.91	54.91	-15.34	-
2	0.229	0.10	41.98	-	42.08	-	62.50	52.50	-20.42	-
3	0.267	0.10	37.53	-	37.63	-	61.21	51.21	-23.58	-
4	2.325	0.23	32.96	-	33.19	-	56.00	46.00	-22.81	-
5	3.921	0.28	36.52	-	36.80	-	56.00	46.00	-19.20	-
6	9.883	0.33	31.99	-	32.32	-	60.00	50.00	-27.68	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.

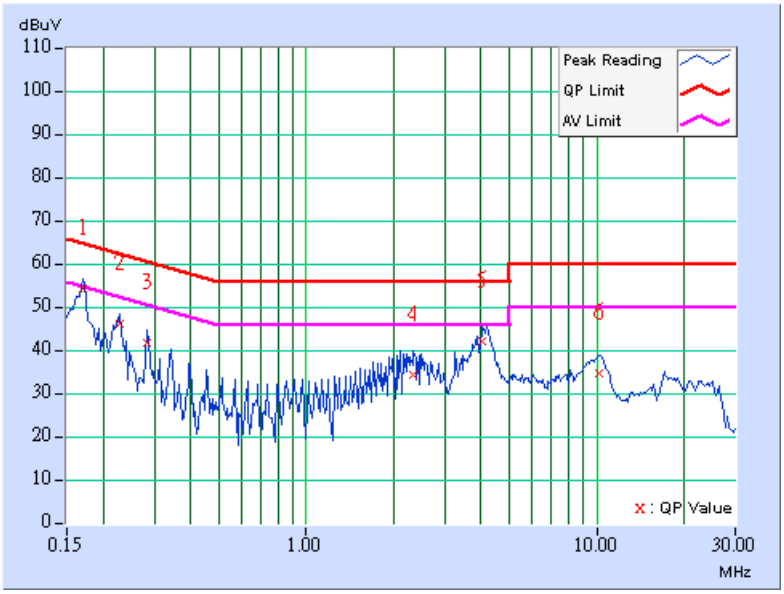


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	13.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

NO	FREQ. [MHz]	CORR. FACTOR (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	53.85	-	53.95	-	64.98	54.98	-11.03	-
2	0.229	0.10	45.68	-	45.78	-	62.50	52.50	-16.72	-
3	0.283	0.10	41.30	-	41.40	-	60.73	50.73	-19.33	-
4	2.329	0.23	34.11	-	34.34	-	56.00	46.00	-21.66	-
5	4.032	0.28	41.85	-	42.13	-	56.00	46.00	-13.87	-
6	10.160	0.43	34.35	-	34.78	-	60.00	50.00	-25.22	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.

2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value.
5. Correction factor = Insertion loss + Cable loss.
6. Emission Level = Correction Factor + Reading Value.



5.2 RADIATED EMISSION MEASUREMENT

5.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

5.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESI7	838496/016	Dec. 29, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 01, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 04, 2008
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-405	Dec. 18, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 16, 2008
Preamplifier Agilent	8449B	3008A1960	Oct. 30, 2007
Preamplifier Agilent	8447D	2944A10631	Oct. 30, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	230128/4	Nov. 14, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	233233/4	Nov. 14, 2007
Software ADT.	ADT_Radiated_V7.6	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 4.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The IC Site Registration No. is IC3789B-4.

5.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

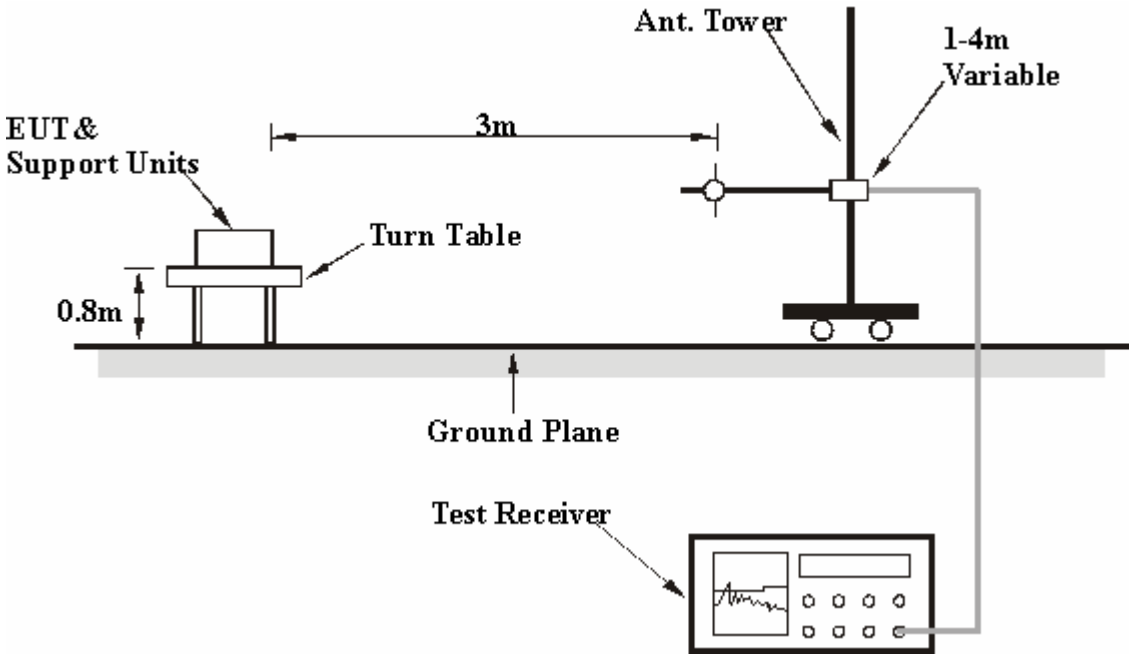
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.

5.2.4 DEVIATION FROM TEST STANDARD

No deviation

5.2.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

5.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

5.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA: 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 991hPa	TESTED BY	Lori Chiu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	132.95	27.13 QP	43.50	-16.37	1.50 H	346	15.08	12.05
2	199.05	31.88 QP	43.50	-11.62	1.50 H	10	21.48	10.40
3	232.11	37.09 QP	46.00	-8.91	1.50 H	31	25.33	11.75
4	267.10	44.63 QP	46.00	-1.37	1.50 H	25	31.81	12.82
5	300.16	42.56 QP	46.00	-3.44	1.50 H	136	29.20	13.36
6	333.21	44.37 QP	46.00	-1.63	1.00 H	10	30.21	14.16
7	366.26	34.63 QP	46.00	-11.37	1.00 H	85	19.69	14.93
8	397.37	29.99 QP	46.00	-16.01	1.00 H	271	14.34	15.65
9	729.84	31.68 QP	46.00	-14.32	1.00 H	52	8.97	22.71
10	797.89	30.26 QP	46.00	-15.74	1.00 H	31	5.95	24.32

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.17	27.16 QP	43.50	-16.34	1.00 V	160	15.41	11.76
2	267.10	32.14 QP	46.00	-13.86	1.00 V	10	19.32	12.82
3	298.21	34.17 QP	46.00	-11.83	1.00 V	127	20.85	13.32
4	333.21	41.07 QP	46.00	-4.93	1.00 V	295	26.91	14.16
5	564.58	30.54 QP	46.00	-15.46	1.00 V	34	10.27	20.27
6	597.63	29.11 QP	46.00	-16.89	1.00 V	97	8.07	21.04
7	949.55	32.01 QP	46.00	-13.99	1.00 V	82	6.29	25.72

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 991hPa	TESTED BY	Lori Chiu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	132.95	28.64 QP	43.50	-14.86	2.50 H	4	16.59	12.05
2	166.00	28.57 QP	43.50	-14.93	2.50 H	202	15.54	13.03
3	199.05	33.99 QP	43.50	-9.51	2.50 H	22	23.59	10.40
4	232.11	37.84 QP	46.00	-8.16	1.50 H	25	26.09	11.75
5	265.16	44.50 QP	46.00	-1.50	1.00 H	46	31.71	12.79
6	298.21	41.00 QP	46.00	-5.00	1.50 H	85	27.67	13.32
7	333.21	44.65 QP	46.00	-1.35	1.50 H	1	30.49	14.16
8	366.26	31.74 QP	46.00	-14.26	1.00 H	67	16.80	14.93
9	401.26	31.91 QP	46.00	-14.09	1.00 H	67	16.17	15.75
10	465.42	32.49 QP	46.00	-13.51	1.50 H	274	14.80	17.69
11	955.38	31.19 QP	46.00	-14.81	2.50 H	130	5.44	25.75

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	265.16	38.69 QP	46.00	-7.31	2.00 V	145	25.90	12.79
2	300.16	35.07 QP	46.00	-10.93	1.50 V	163	21.72	13.36
3	331.26	40.92 QP	46.00	-5.08	2.00 V	349	26.81	14.11
4	366.26	32.07 QP	46.00	-13.93	1.50 V	322	17.14	14.93
5	399.31	33.27 QP	46.00	-12.73	1.50 V	340	17.58	15.69
6	731.79	31.61 QP	46.00	-14.39	1.50 V	82	8.85	22.76

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH, 991hPa	TESTED BY	Lori Chiu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	199.05	33.71 QP	43.50	-9.79	2.00 H	196	23.31	10.40
2	232.11	38.06 QP	46.00	-7.94	1.50 H	184	26.31	11.75
3	267.10	44.22 QP	46.00	-1.78	1.50 H	4	31.40	12.82
4	300.16	43.23 QP	46.00	-2.77	1.00 H	10	29.88	13.36
5	331.26	44.77 QP	46.00	-1.23	1.00 H	37	30.66	14.11
6	399.31	33.28 QP	46.00	-12.72	2.50 H	55	17.58	15.69
7	465.42	34.03 QP	46.00	-11.97	2.00 H	274	16.34	17.69
8	564.58	31.09 QP	46.00	-14.91	1.50 H	289	10.82	20.27
9	597.63	31.97 QP	46.00	-14.03	2.00 H	34	10.93	21.04

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.17	29.68 QP	43.50	-13.82	1.00 V	148	17.92	11.76
2	265.16	40.72 QP	46.00	-5.28	1.50 V	145	27.94	12.79
3	298.21	33.19 QP	46.00	-12.81	1.50 V	133	19.87	13.32
4	333.21	42.17 QP	46.00	-3.83	2.00 V	4	28.01	14.16
5	366.26	31.71 QP	46.00	-14.29	2.00 V	316	16.78	14.93
6	399.31	32.38 QP	46.00	-13.62	1.50 V	325	16.69	15.69
7	564.58	31.94 QP	46.00	-14.06	1.00 V	10	11.67	20.27
8	665.68	35.25 QP	46.00	-10.75	1.50 V	286	13.56	21.69
9	731.79	31.22 QP	46.00	-14.78	1.00 V	100	8.47	22.76
10	949.55	32.33 QP	46.00	-13.67	1.50 V	292	6.61	25.72

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

ABOVE 1GHz DATA: 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3830.00	48.10 PK	74.00	-25.90	1.09 H	238	12.42	35.68
2	#3830.00	39.51 AV	54.00	-14.49	1.09 H	238	3.83	35.68
3	5725.00	79.23 PK	89.05	-9.82	1.00 H	198	39.04	40.19
4	5725.00	61.14 AV	76.53	-15.39	1.00 H	198	20.95	40.19
5	*5745.00	109.05 PK			1.00 H	198	68.80	40.25
6	*5745.00	96.53 AV			1.00 H	198	56.28	40.25
7	#11490.00	63.62 PK	74.00	-10.38	1.00 H	278	11.77	51.84
8	#11490.00	50.47 AV	54.00	-3.53	1.00 H	278	-1.38	51.84

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3830.00	49.23 PK	74.00	-24.77	1.01 V	314	13.55	35.68
2	#3830.00	40.76 AV	54.00	-13.24	1.01 V	314	5.08	35.68
3	5725.00	82.45 PK	91.87	-9.42	1.42 V	100	42.26	40.19
4	5725.00	64.02 AV	79.09	-15.07	1.42 V	100	23.83	40.19
5	*5745.00	111.87 PK			1.42 V	100	71.62	40.25
6	*5745.00	99.09 AV			1.42 V	100	58.84	40.25
7	#11490.00	62.07 PK	74.00	-11.93	1.00 V	323	10.22	51.84
8	#11490.00	48.82 AV	54.00	-5.18	1.00 V	323	-3.03	51.84

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3857.00	48.36 PK	74.00	-25.64	1.14 H	295	12.59	35.77
2	#3857.00	39.74 AV	54.00	-14.26	1.14 H	295	3.97	35.77
3	*5785.00	107.87 PK			1.02 H	204	67.52	40.35
4	*5785.00	95.22 AV			1.02 H	204	54.87	40.35
5	#11570.00	63.26 PK	74.00	-10.74	1.19 H	64	11.58	51.68
6	#11570.00	50.02 AV	54.00	-3.98	1.19 H	64	-1.66	51.68

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3857.00	49.56 PK	74.00	-24.44	1.21 V	54	13.79	35.77
2	#3857.00	41.11 AV	54.00	-12.89	1.21 V	54	5.34	35.77
3	*5785.00	110.81 PK			1.40 V	106	70.46	40.35
4	*5785.00	97.96 AV			1.40 V	106	57.61	40.35
5	#11570.00	62.24 PK	74.00	-11.76	1.01 V	79	10.56	51.68
6	#11570.00	49.01 AV	54.00	-4.99	1.01 V	79	-2.67	51.68

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3883.00	48.22 PK	74.00	-25.78	1.08 H	56	12.37	35.85
2	#3883.00	39.76 AV	54.00	-14.24	1.08 H	56	3.91	35.85
3	*5825.00	107.54 PK			1.02 H	200	67.09	40.45
4	*5825.00	95.04 AV			1.02 H	200	54.59	40.45
5	5850.00	67.41 PK	87.54	-20.13	1.02 H	200	26.89	40.52
6	5850.00	55.20 AV	75.04	-19.84	1.02 H	200	14.69	40.52
7	#11650.00	63.87 PK	74.00	-10.13	1.28 H	31	12.39	51.48
8	#11650.00	50.69 AV	54.00	-3.31	1.28 H	31	-0.79	51.48

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3883.00	49.12 PK	74.00	-24.88	1.08 V	255	13.27	35.85
2	#3883.00	40.62 AV	54.00	-13.38	1.08 V	255	4.77	35.85
3	*5825.00	110.13 PK			1.41 V	103	69.68	40.45
4	*5825.00	97.43 AV			1.41 V	103	56.98	40.45
5	5850.00	69.92 PK	90.13	-20.21	1.41 V	103	29.41	40.52
6	5850.00	57.67 AV	77.43	-19.76	1.41 V	103	17.16	40.52
7	#11650.00	62.44 PK	74.00	-11.56	1.02 V	249	10.96	51.48
8	#11650.00	49.11 AV	54.00	-4.89	1.02 V	249	-2.37	51.48

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 66%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3830.00	48.26 PK	74.00	-25.74	1.12 H	241	12.58	35.68
2	#3830.00	39.63 AV	54.00	-14.37	1.12 H	241	3.95	35.68
3	5725.00	74.36 PK	88.13	-13.77	1.01 H	203	34.17	40.19
4	5725.00	58.25 AV	75.64	-17.39	1.01 H	203	18.06	40.19
5	*5745.00	108.13 PK			1.01 H	203	67.88	40.25
6	*5745.00	95.64 AV			1.01 H	203	55.39	40.25
7	#11490.00	63.78 PK	74.00	-10.22	1.02 H	296	11.94	51.84
8	#11490.00	50.62 AV	54.00	-3.38	1.02 H	296	-1.23	51.84

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3830.00	49.65 PK	74.00	-24.35	1.04 V	236	13.97	35.68
2	#3830.00	41.08 AV	54.00	-12.92	1.04 V	236	5.40	35.68
3	5725.00	76.49 PK	90.69	-14.20	1.31 V	105	36.30	40.19
4	5725.00	60.82 AV	78.19	-17.37	1.31 V	105	20.63	40.19
5	*5745.00	110.69 PK			1.31 V	105	70.44	40.25
6	*5745.00	98.19 AV			1.31 V	105	57.94	40.25
7	#11490.00	62.28 PK	74.00	-11.72	1.14 V	26	10.44	51.84
8	#11490.00	49.03 AV	54.00	-4.97	1.14 V	26	-2.81	51.84

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 66%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3857.00	48.76 PK	74.00	-25.24	1.13 H	304	12.99	35.77
2	#3857.00	40.15 AV	54.00	-13.85	1.13 H	304	4.38	35.77
3	*5785.00	106.95 PK			1.04 H	212	66.60	40.35
4	*5785.00	94.36 AV			1.04 H	212	54.01	40.35
5	#11570.00	63.45 PK	74.00	-10.55	1.21 H	95	11.77	51.68
6	#11570.00	50.22 AV	54.00	-3.78	1.21 H	95	-1.46	51.68

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3857.00	49.86 PK	74.00	-24.14	1.18 V	60	14.09	35.77
2	#3857.00	41.44 AV	54.00	-12.56	1.18 V	60	5.67	35.77
3	*5785.00	109.75 PK			1.29 V	101	69.40	40.35
4	*5785.00	96.90 AV			1.29 V	101	56.55	40.35
5	#11570.00	62.38 PK	74.00	-11.62	1.05 V	93	10.70	51.68
6	#11570.00	49.21 AV	54.00	-4.79	1.05 V	93	-2.47	51.68

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 66%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3883.00	48.36 PK	74.00	-25.64	1.13 H	64	12.51	35.85
2	#3883.00	39.88 AV	54.00	-14.12	1.13 H	64	4.03	35.85
3	*5825.00	106.68 PK			1.05 H	207	66.23	40.45
4	*5825.00	94.22 AV			1.05 H	207	53.77	40.45
5	5850.00	66.89 PK	86.68	-19.79	1.05 H	207	26.37	40.52
6	5850.00	54.26 AV	74.22	-19.96	1.05 H	207	13.74	40.52
7	#11650.00	63.55 PK	74.00	-10.45	1.25 H	42	12.07	51.48
8	#11650.00	50.34 AV	54.00	-3.66	1.25 H	42	-1.14	51.48

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3883.00	49.65 PK	74.00	-24.35	1.10 V	269	13.80	35.85
2	#3883.00	41.22 AV	54.00	-12.78	1.10 V	269	5.37	35.85
3	*5825.00	109.22 PK			1.40 V	100	68.77	40.45
4	*5825.00	96.58 AV			1.40 V	100	56.13	40.45
5	5850.00	69.26 PK	89.22	-19.96	1.40 V	100	28.75	40.52
6	5850.00	56.62 AV	76.58	-19.96	1.40 V	100	16.10	40.52
7	#11650.00	62.86 PK	74.00	-11.14	1.09 V	265	11.38	51.48
8	#11650.00	49.53 AV	54.00	-4.47	1.09 V	265	-1.95	51.48

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. " # ": The radiated frequency falling in the restricted band.

7. The limit value is defined as per 15.247.

DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 66%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3837.00	48.22 PK	74.00	-25.78	1.18 H	246	12.52	35.70
2	#3837.00	39.65 AV	54.00	-14.35	1.18 H	246	3.95	35.70
3	5725.00	66.51 PK	79.34	-12.83	1.20 H	98	26.32	40.19
4	5725.00	54.30 AV	66.85	-12.55	1.20 H	98	14.11	40.19
5	*5755.00	99.34 PK			1.20 H	98	59.07	40.27
6	*5755.00	86.85 AV			1.20 H	98	46.58	40.27
7	#11510.00	63.24 PK	74.00	-10.76	1.19 H	68	11.41	51.83
8	#11510.00	50.12 AV	54.00	-3.88	1.19 H	68	-1.71	51.83

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3837.00	49.56 PK	74.00	-24.44	1.19 V	66	13.86	35.70
2	#3837.00	41.08 AV	54.00	-12.92	1.19 V	66	5.38	35.70
3	5725.00	71.96 PK	84.59	-12.63	1.21 V	102	31.77	40.19
4	5725.00	59.73 AV	72.02	-12.29	1.21 V	102	19.54	40.19
5	*5755.00	104.59 PK			1.21 V	102	64.32	40.27
6	*5755.00	92.02 AV			1.21 V	102	51.75	40.27
7	#11510.00	62.13 PK	74.00	-11.87	1.00 V	24	10.30	51.83
8	#11510.00	49.01 AV	54.00	-4.99	1.00 V	24	-2.82	51.83

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
MODULATION TYPE	BPSK	TRANSFER RATE	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 66%RH, 991hPa	TESTED BY	Brad Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3863.00	48.39 PK	74.00	-25.61	1.14 H	231	12.60	35.79
2	#3863.00	39.81 AV	54.00	-14.19	1.14 H	231	4.02	35.79
3	*5795.00	99.12 PK			1.18 H	103	58.74	40.38
4	*5795.00	86.64 AV			1.18 H	103	46.26	40.38
5	5850.00	63.88 PK	79.12	-15.24	1.18 H	103	23.37	40.52
6	5850.00	51.40 AV	66.64	-15.24	1.18 H	103	10.88	40.52
7	#11590.00	63.36 PK	74.00	-10.64	1.24 H	26	11.73	51.63
8	#11590.00	50.28 AV	54.00	-3.72	1.24 H	26	-1.35	51.63

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3m								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#3863.00	49.88 PK	74.00	-24.12	1.14 V	72	14.09	35.79
2	#3863.00	41.42 AV	54.00	-12.58	1.14 V	72	5.63	35.79
3	*5795.00	104.36 PK			1.20 V	101	63.98	40.38
4	*5795.00	91.85 AV			1.20 V	101	51.47	40.38
5	5850.00	69.12 PK	84.36	-15.24	1.20 V	101	28.61	40.52
6	5850.00	56.61 AV	71.85	-15.24	1.20 V	101	16.09	40.52
7	#11590.00	62.45 PK	74.00	-11.55	1.02 V	36	10.82	51.63
8	#11590.00	49.32 AV	54.00	-4.68	1.02 V	36	-2.31	51.63

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247.

5.3 6dB BANDWIDTH MEASUREMENT

5.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

5.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

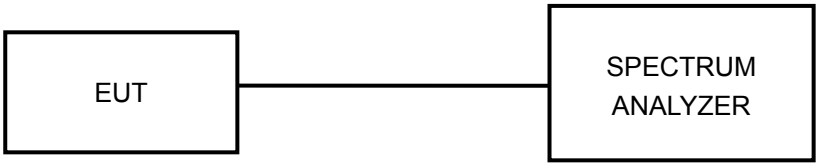
5.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

5.3.4 DEVIATION FROM TEST STANDARD

No deviation

5.3.5 TEST SETUP



5.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

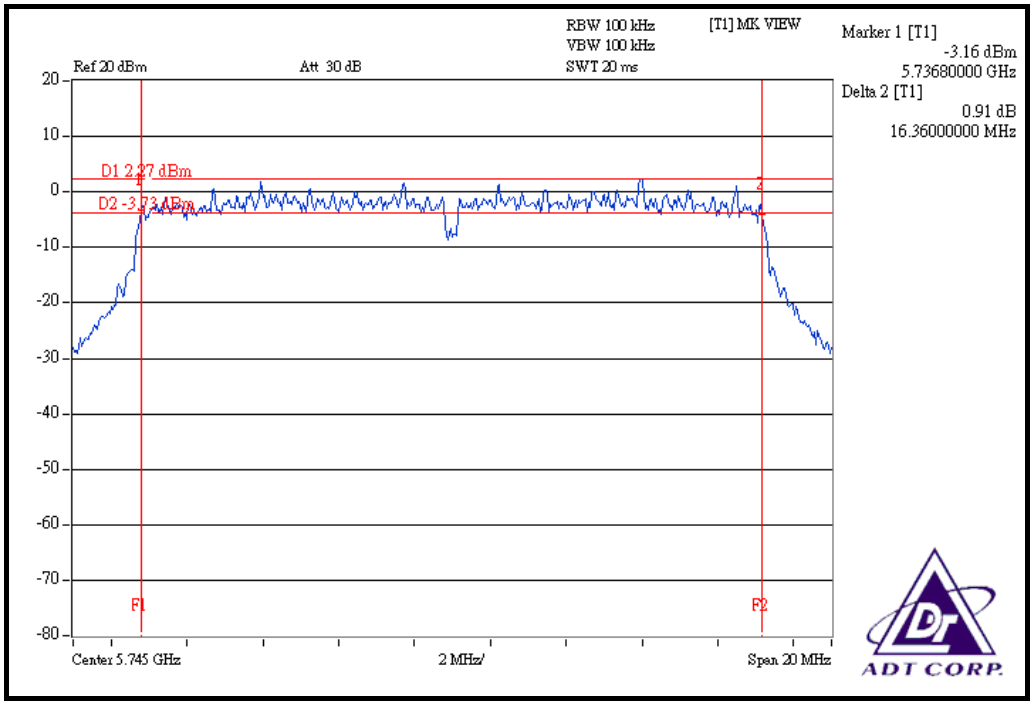
5.3.7 TEST RESULTS

802.11a OFDM MODULATION:

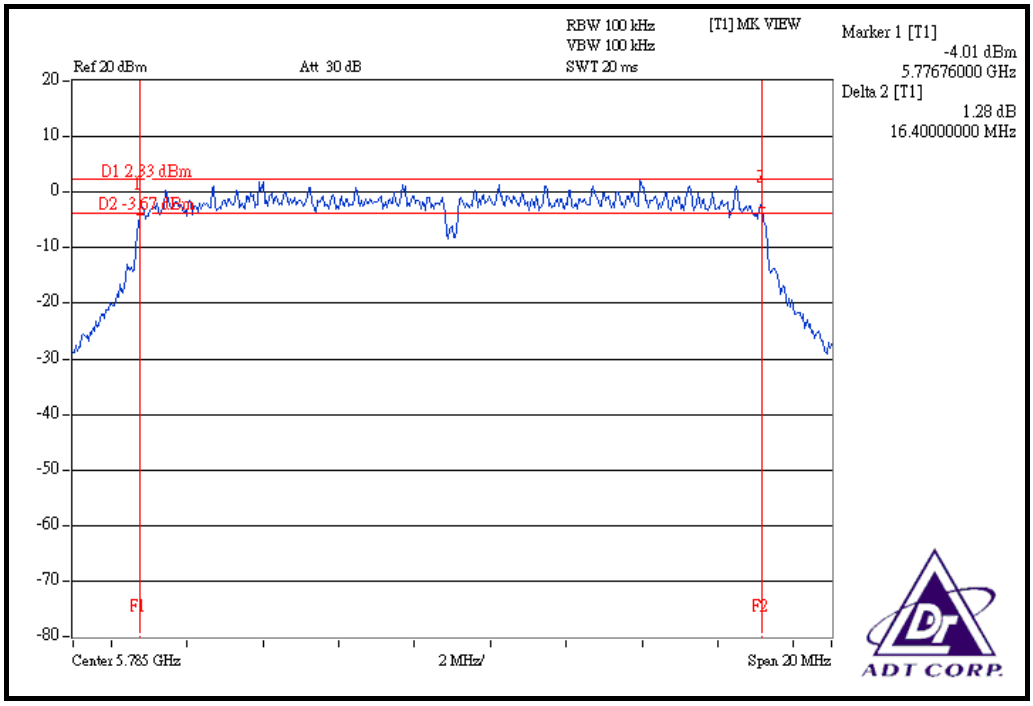
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	5745	16.36	0.5	PASS
3	5785	16.40	0.5	PASS
5	5825	16.40	0.5	PASS

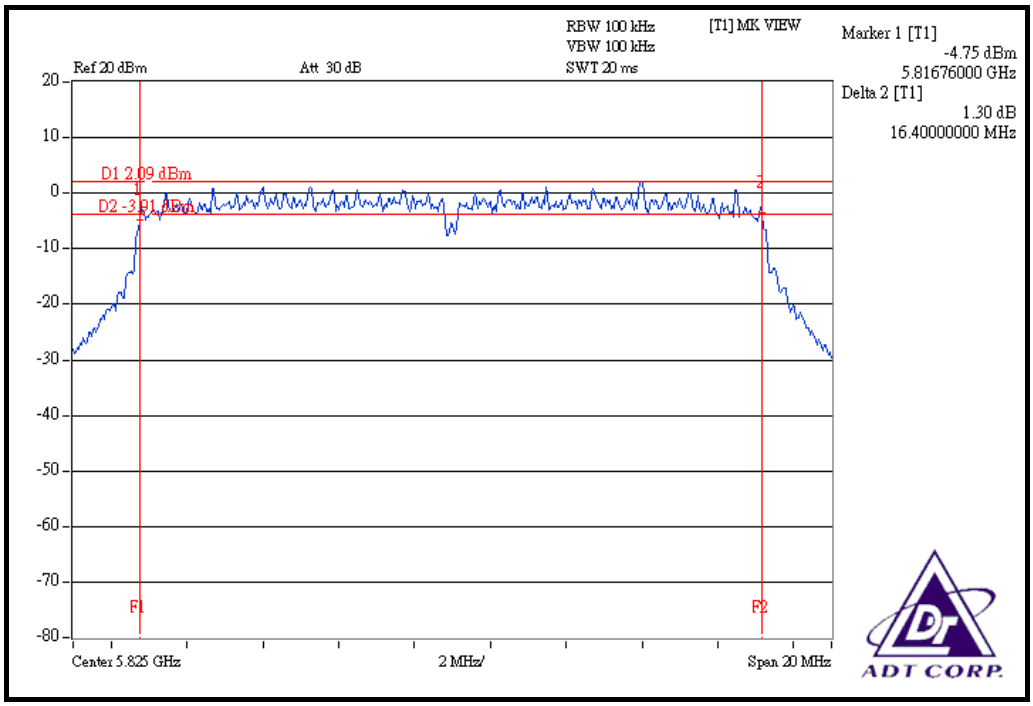
CH 1



CH 3


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-4.01 dBm
5.77676000 GHz
Delta 2 [T1]
1.28 dB
16.40000000 MHz
Ref 20 dBm
Att 30 dB
D1 2.33 dBm
D2 -3.67 dBm
F1
F2
Center 5.785 GHz
2 MHz/
Span 20 MHz
ADT CORP.

CH 5

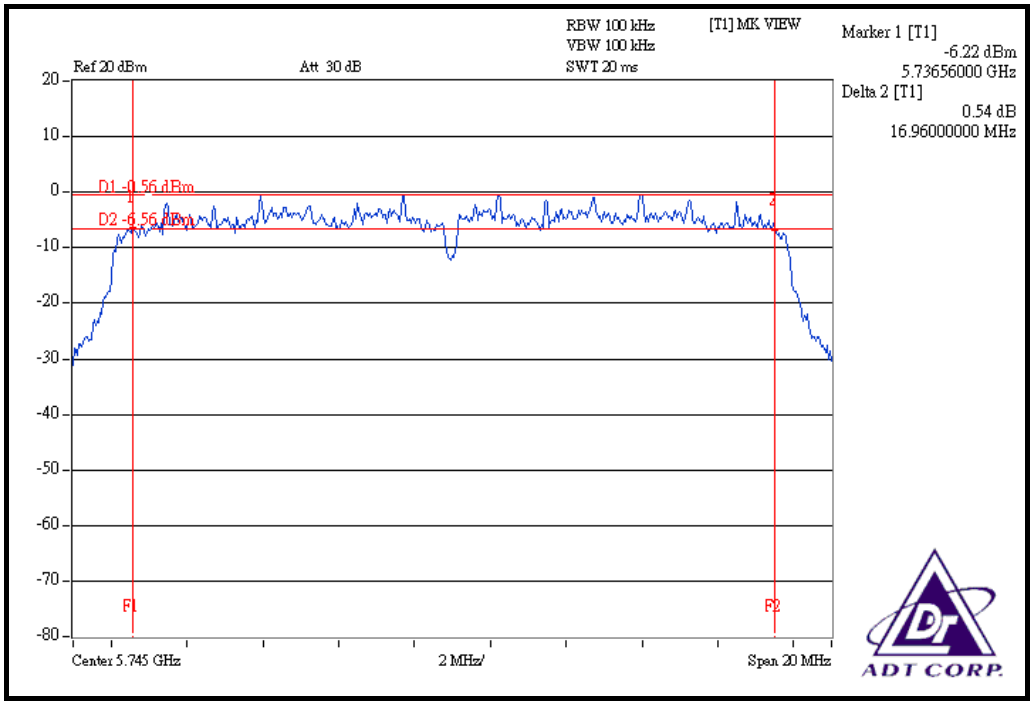

RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-4.75 dBm
5.81676000 GHz
Delta 2 [T1]
1.30 dB
16.40000000 MHz
Ref 20 dBm
Att 30 dB
D1 2.09 dBm
D2 -3.91 dBm
F1
F2
Center 5.825 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION:

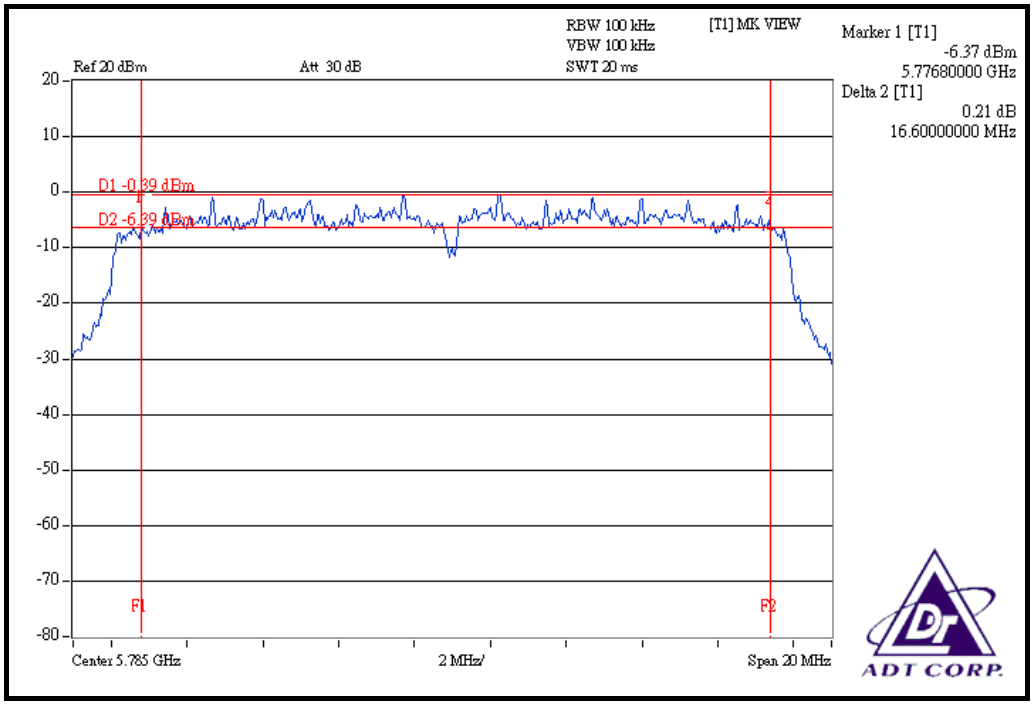
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	5745	16.96	16.72	0.5	PASS
3	5785	16.60	16.96	0.5	PASS
5	5825	16.12	16.92	0.5	PASS

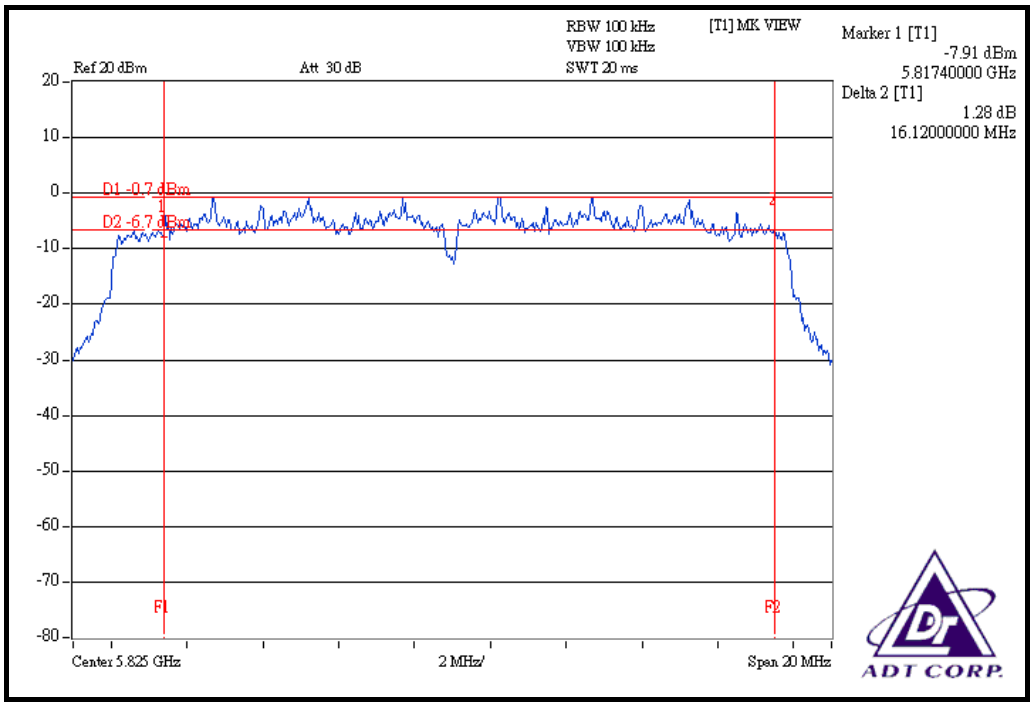
FOR CHAIN 0: CH 1



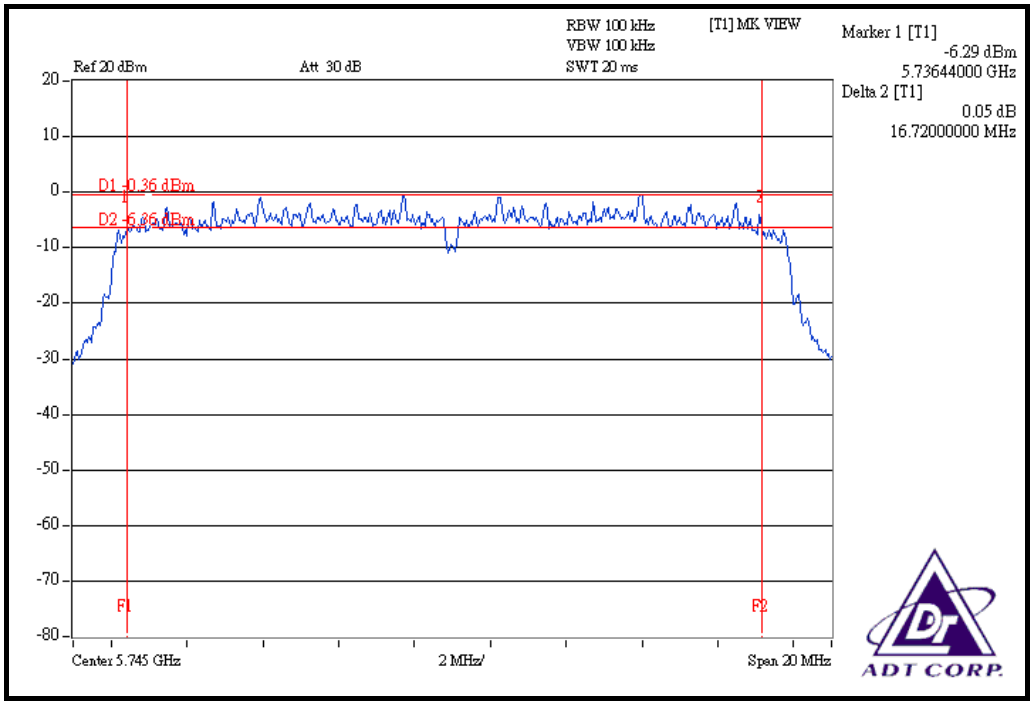
CH 3


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-6.37 dBm
5.77680000 GHz
Delta 2 [T1]
0.21 dB
16.60000000 MHz
Ref 20 dBm
Att 30 dB
D1 -0.39 dBm
D2 -6.39 dBm
F1
F2
Center 5.785 GHz
2 MHz/
Span 20 MHz
ADT CORP.

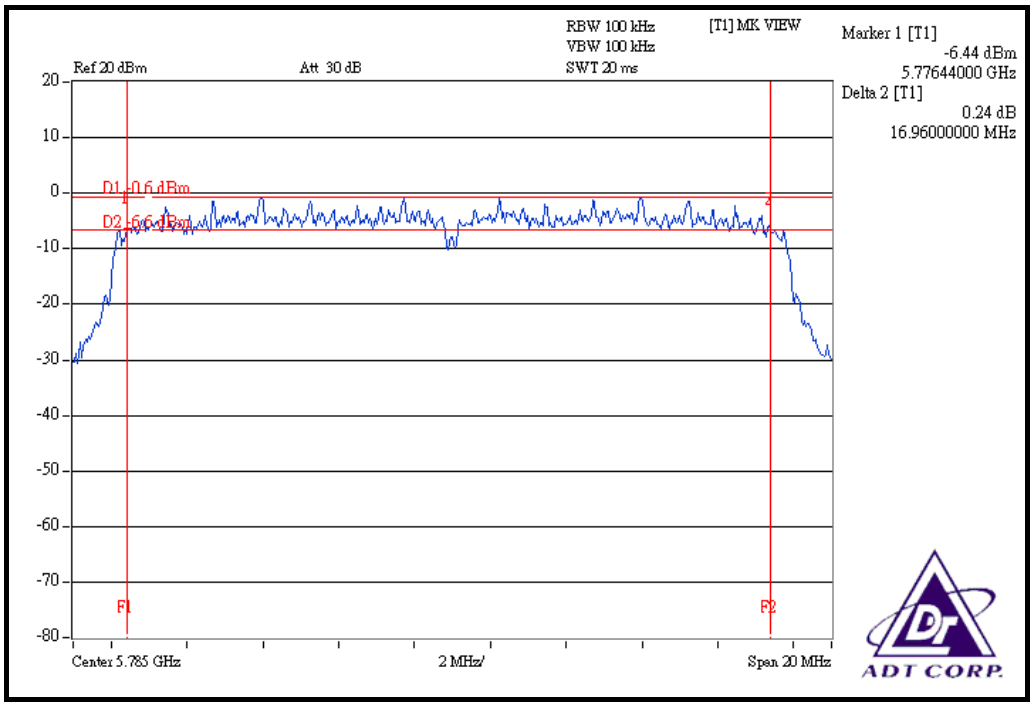
CH 5


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-7.91 dBm
5.81740000 GHz
Delta 2 [T1]
1.28 dB
16.12000000 MHz
Ref 20 dBm
Att 30 dB
D1 -0.7 dBm
D2 -6.7 dBm
F1
F2
Center 5.825 GHz
2 MHz/
Span 20 MHz
ADT CORP.

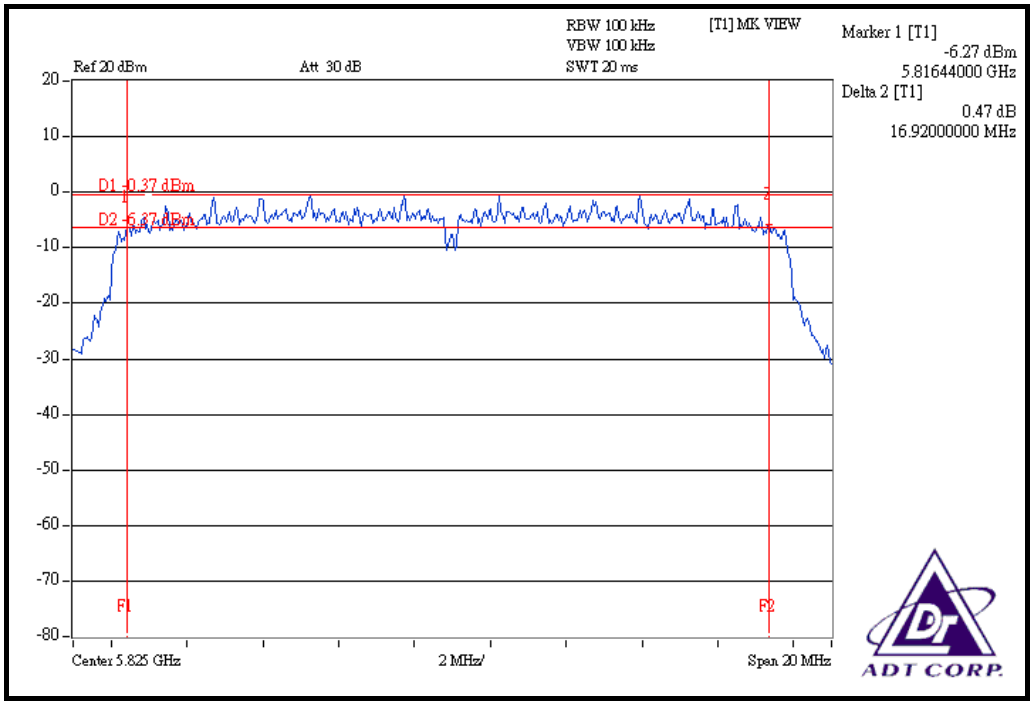
FOR CHAIN 1: CH 1



CH 3



CH 5

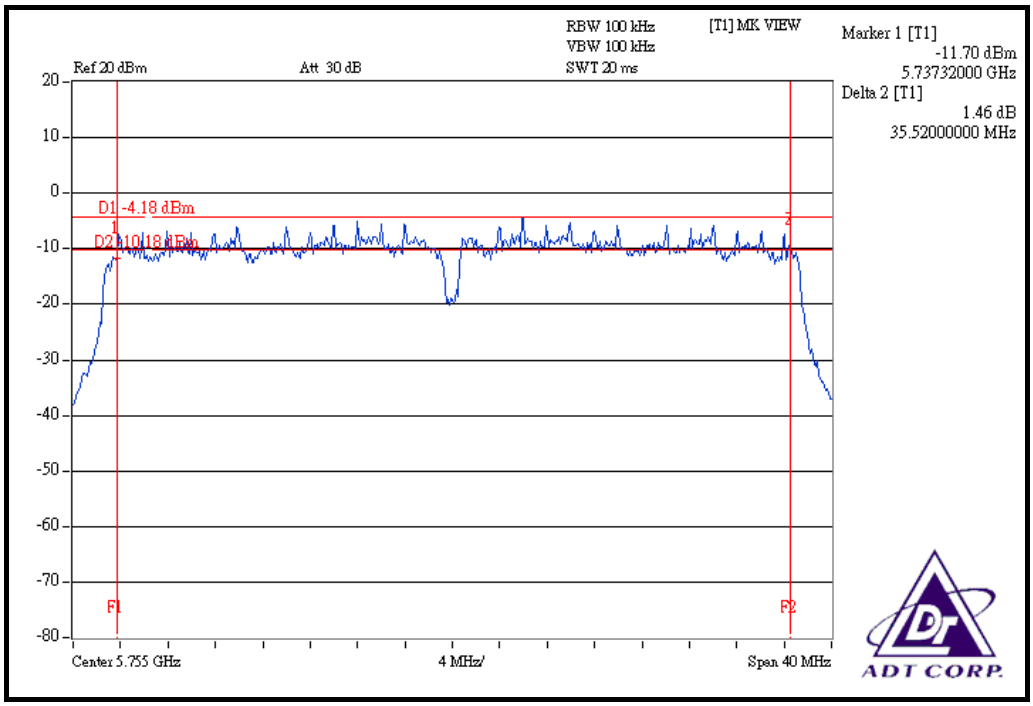

RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-6.27 dBm
5.81644000 GHz
Delta 2 [T1]
0.47 dB
16.92000000 MHz
Ref 20 dBm
Att 30 dB
D1 -0.37 dBm
D2 -6.27 dBm
F1
F2
Center 5.825 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION:

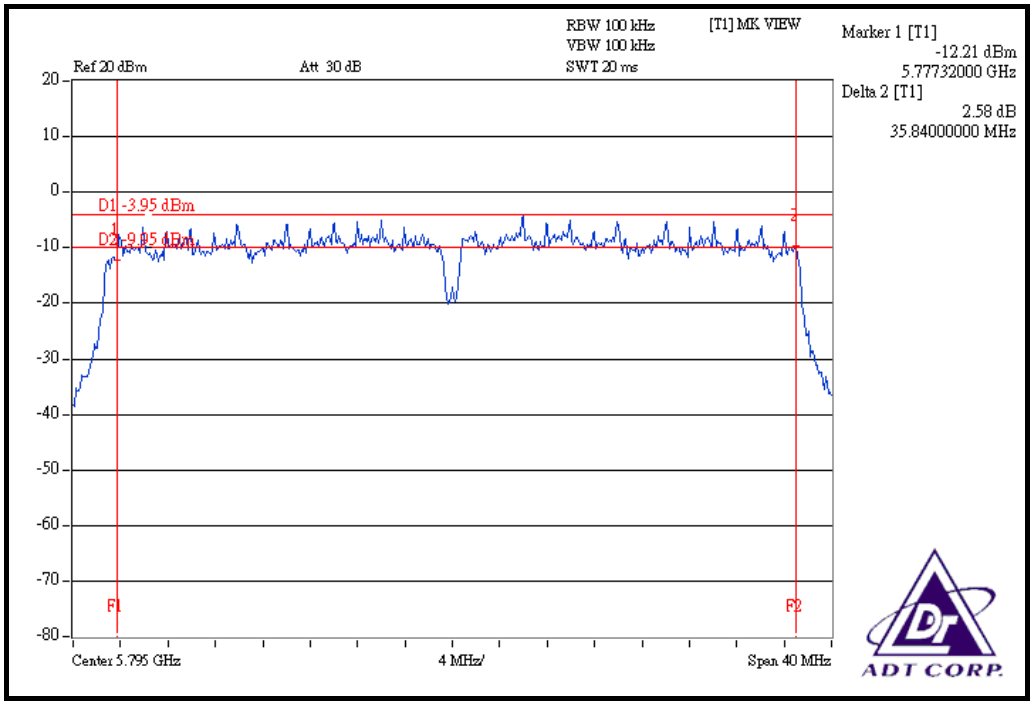
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	5755	35.52	35.68	0.5	PASS
2	5795	35.84	35.52	0.5	PASS

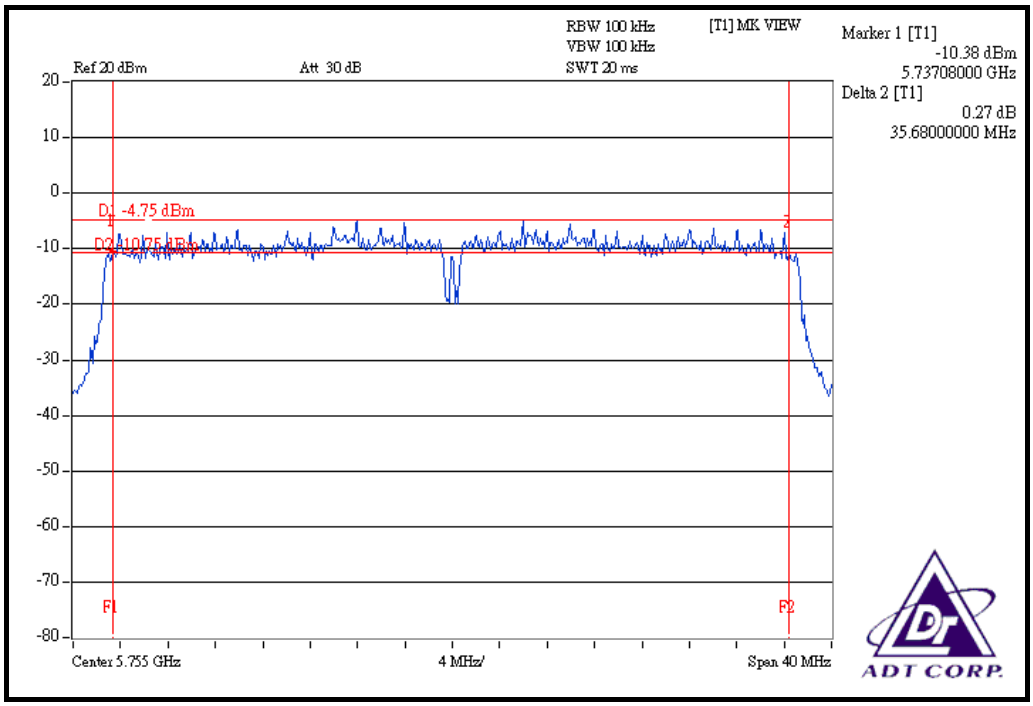
FOR CHAIN 0: CH 1



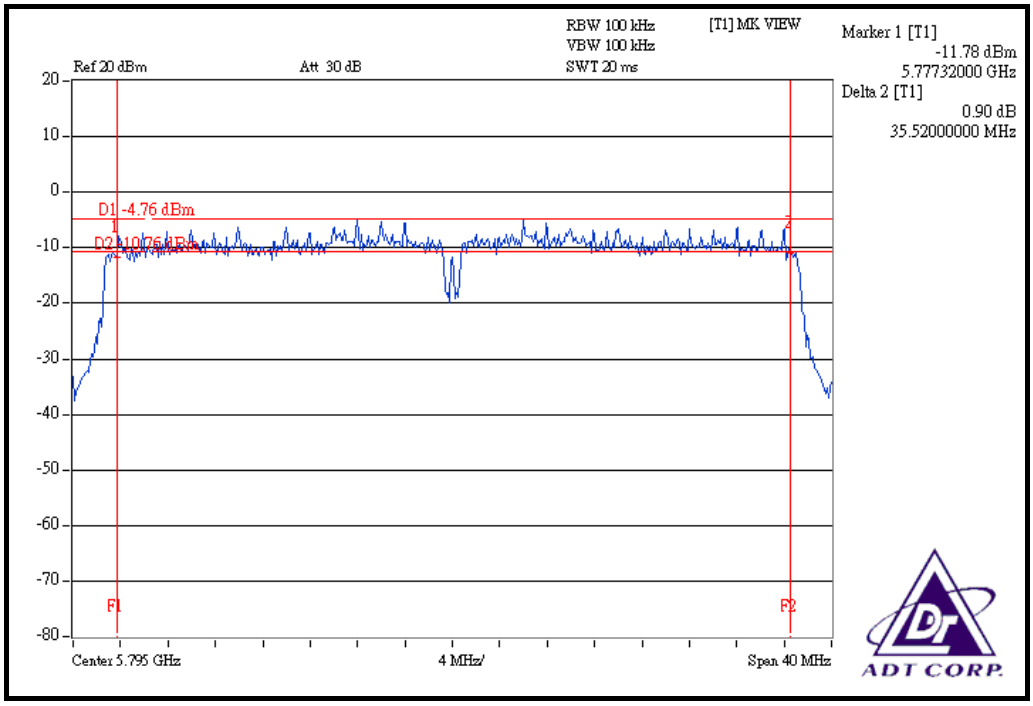
CH 2



FOR CHAIN 1: CH 1



CH 2


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-11.78 dBm
5.77732000 GHz
Delta 2 [T1]
0.90 dB
35.52000000 MHz
Ref 20 dBm
Att 30 dB
D1 -4.76 dBm
F1
F2
Center 5.795 GHz
4 MHz/
Span 40 MHz
ADT CORP.

5.4 MAXIMUM PEAK OUTPUT POWER

5.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

5.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008
ANRITSU SYNTHESIZED SIGNAL GENERATOR	68247B	984703	May 18, 2008
DIGITAL RT OSCILLOSCOPE	TDS1012	C037299	Nov. 27, 2007
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

5.4.4 DEVIATION FROM TEST STANDARD

No deviation

5.4.5 TEST SETUP

5.4.6 EUT OPERATING CONDITIONS

Same as Item 5.3.6

5.4.7 TEST RESULTS

802.11a OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	5745	63.973	18.06	30	PASS
3	5785	63.680	18.04	30	PASS
5	5825	63.241	18.01	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	5745	40.179	40.365	16.04	16.06	81.544	19.11	30	PASS
3	5785	39.994	40.458	16.02	16.07	81.452	19.11	30	PASS
5	5825	39.902	40.272	16.01	16.05	81.174	19.09	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION:

MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	5755	40.087	40.644	16.03	16.09	81.731	19.12	30	PASS
2	5795	39.994	40.458	16.02	16.07	81.452	19.11	30	PASS

5.5 POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

5.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.5.3 TEST PROCEDURE

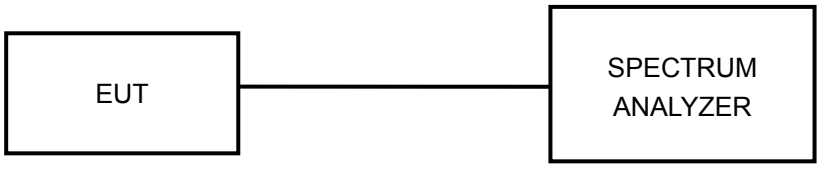
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5.5 TEST SETUP



5.5.6 EUT OPERATING CONDITION

Same as Item 5.3.6

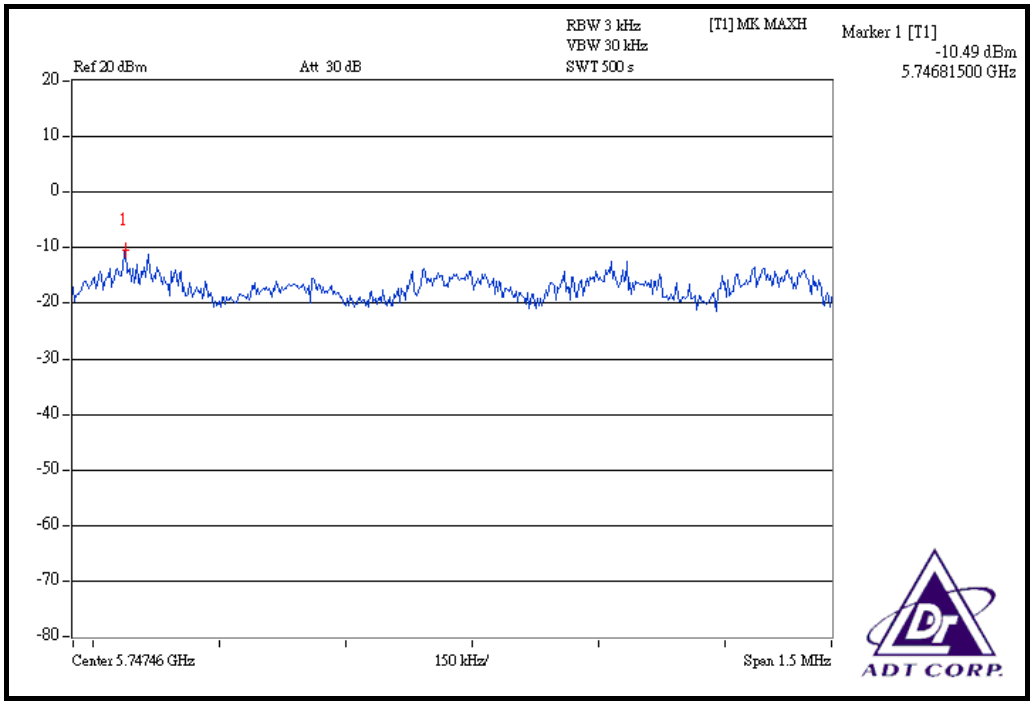
5.5.7 TEST RESULTS

802.11a OFDM MODULATION:

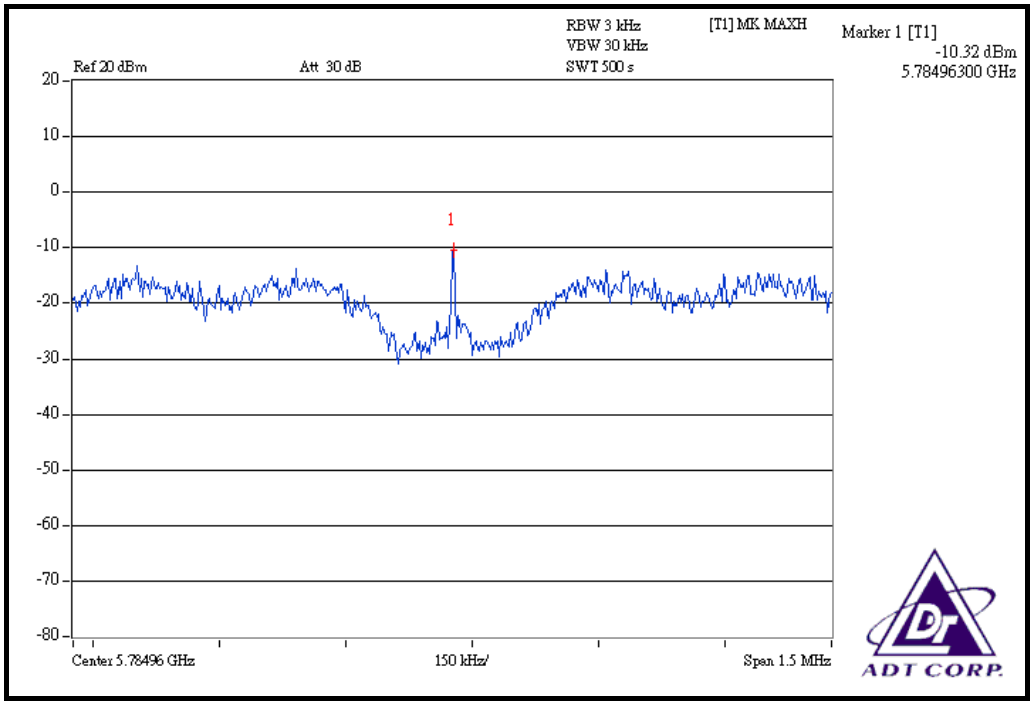
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	5745	-10.49	8	PASS
3	5785	-10.32	8	PASS
5	5825	-10.31	8	PASS

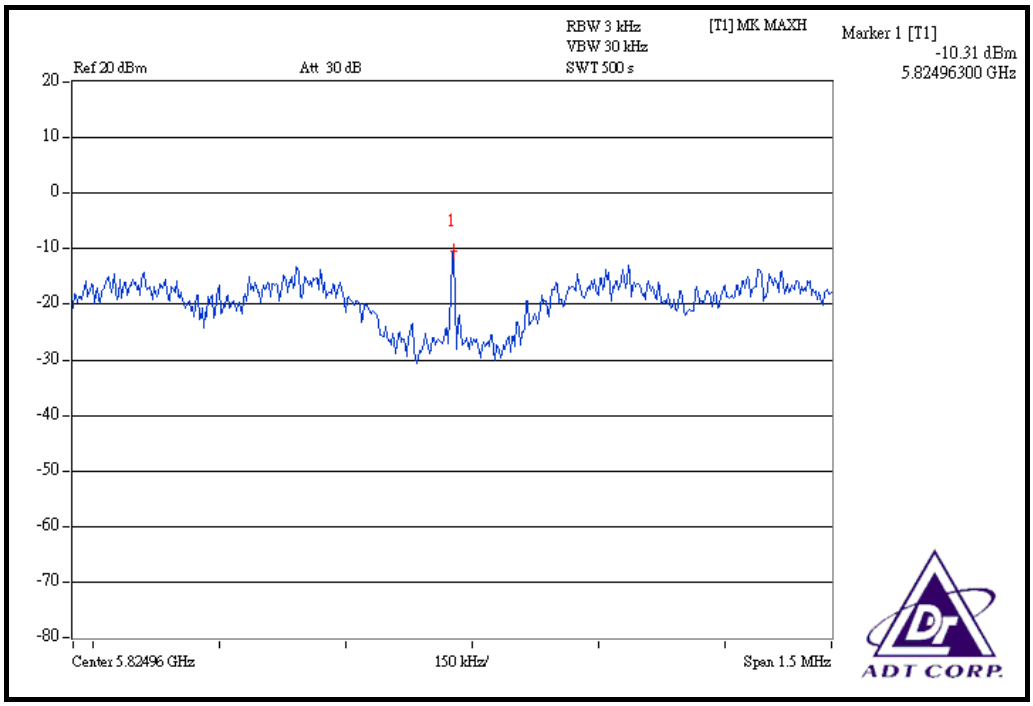
CH 1



CH 3


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-10.32 dBm
5.78496300 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.78496 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

CH 5

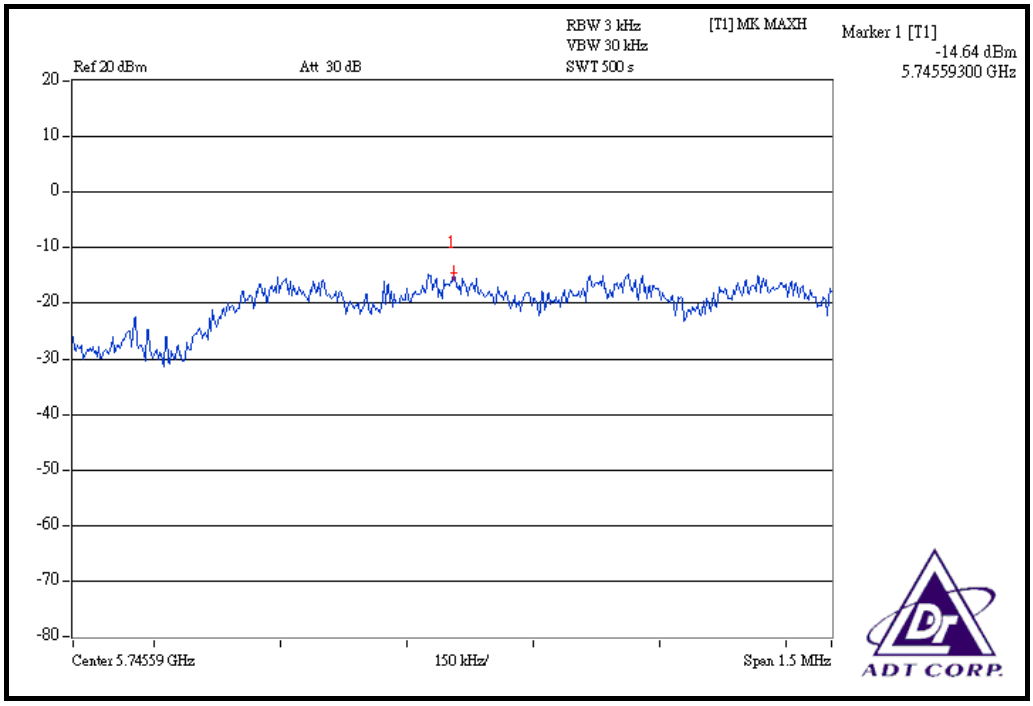

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-10.31 dBm
5.82496300 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.82496 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION:

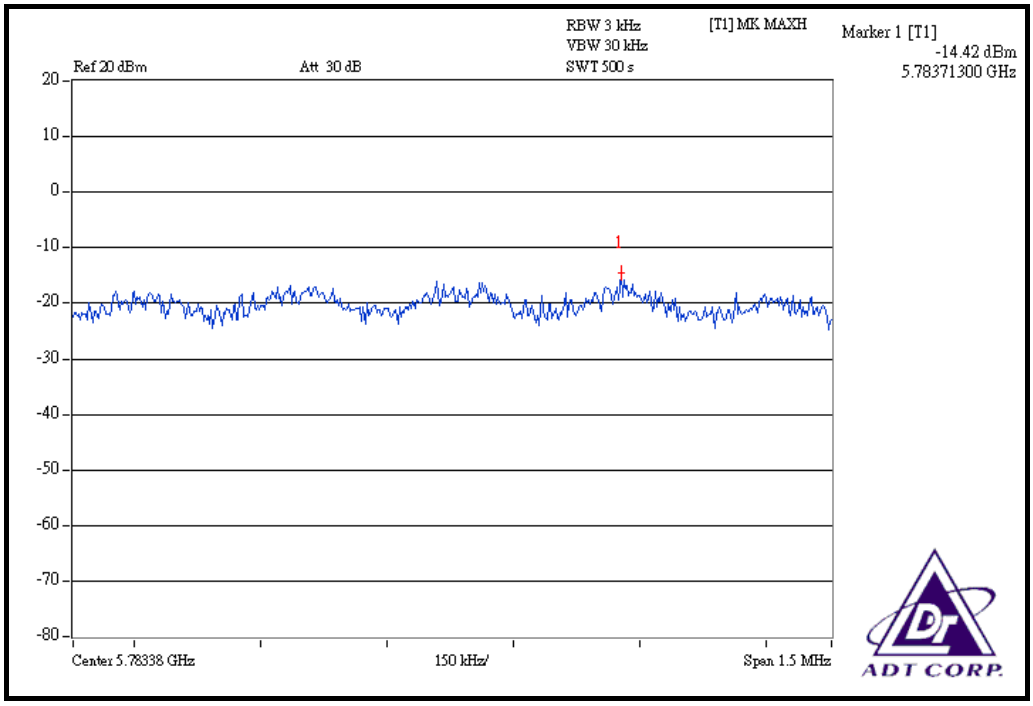
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	5745	0.034	0.038	-14.64	-14.23	0.072	-11.43	8	PASS
3	5785	0.036	0.059	-14.42	-12.29	0.095	-10.22	8	PASS
5	5825	0.035	0.055	-14.62	-12.60	0.090	-10.46	8	PASS

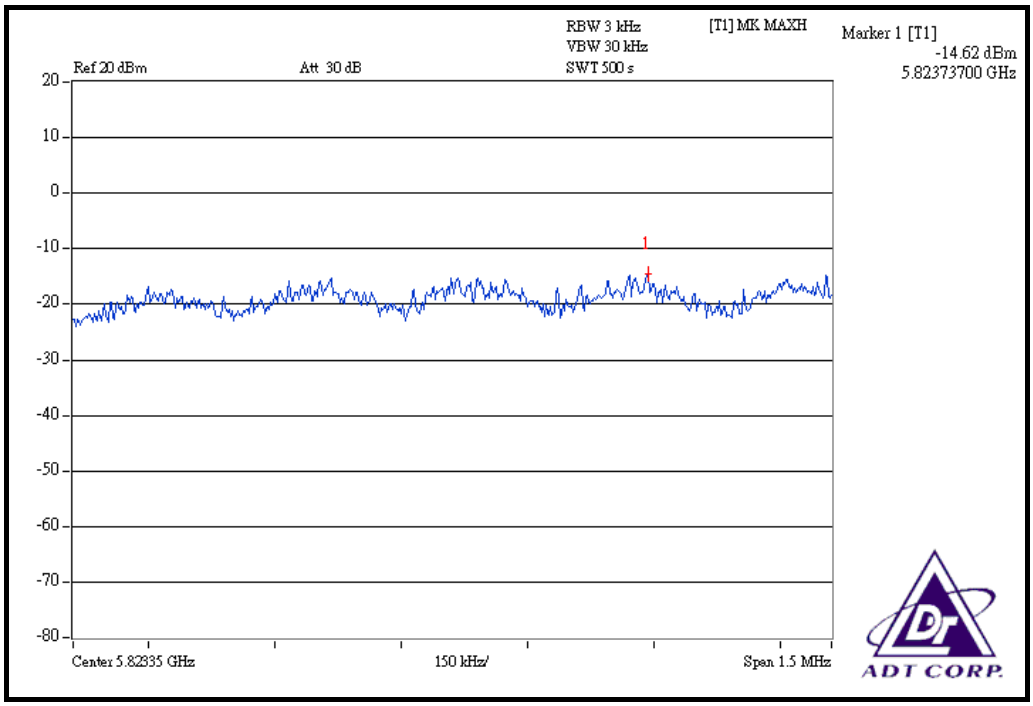
FOR CHAIN 0: CH 1



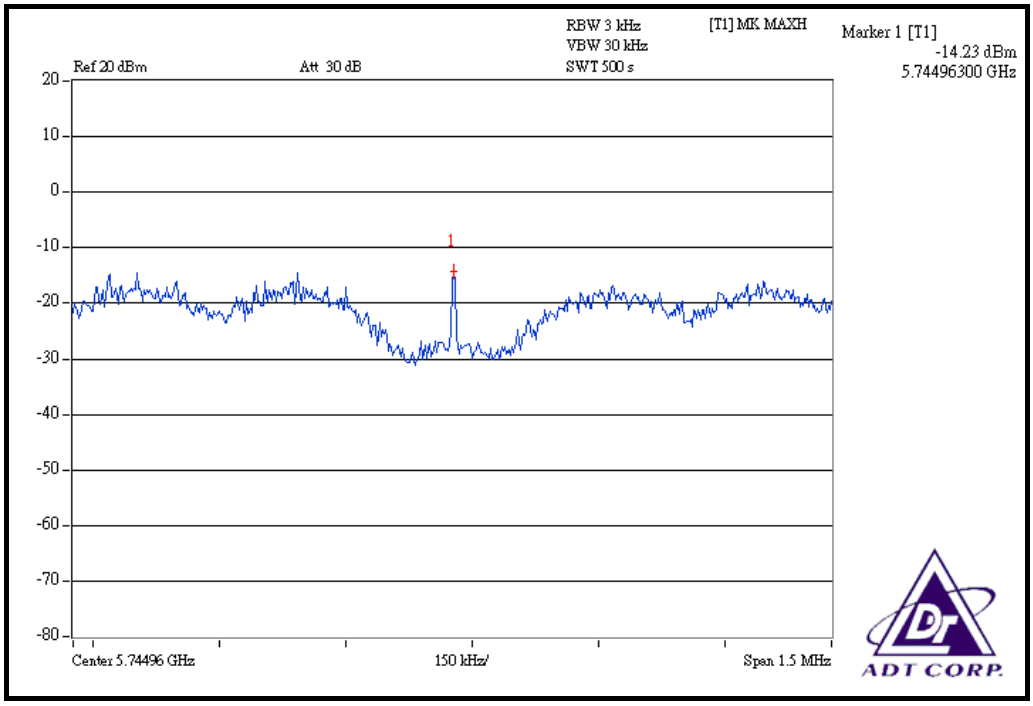
CH 3


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.42 dBm
5.78371300 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 5.78338 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

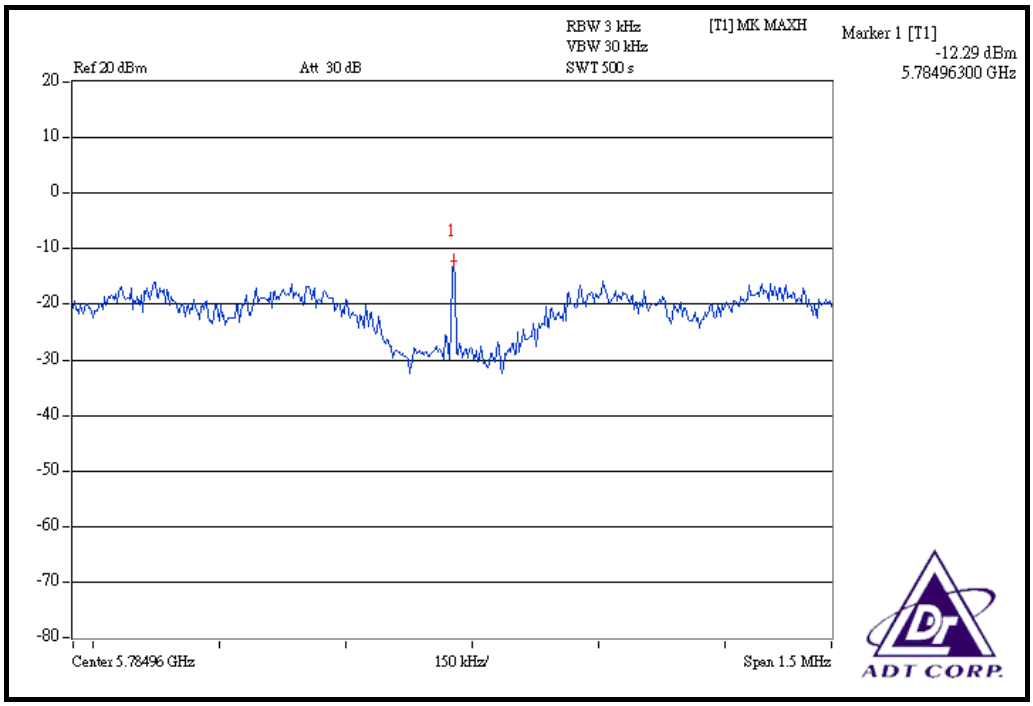
CH 5


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.62 dBm
5.82373700 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 5.82335 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

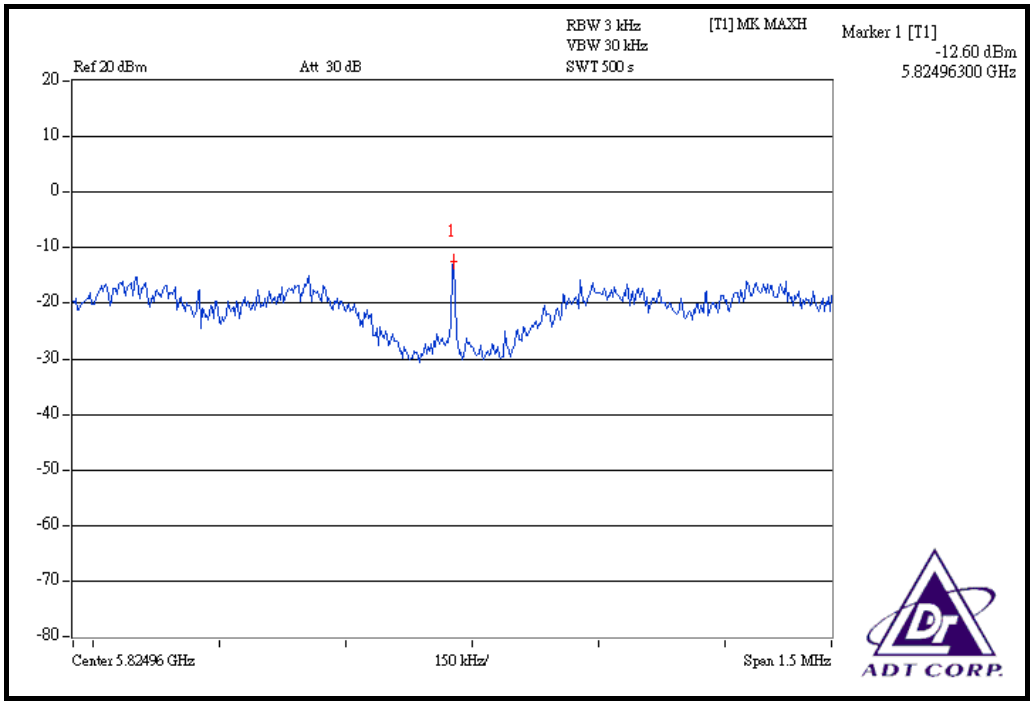
FOR CHAIN 1: CH 1



CH 3



CH 5

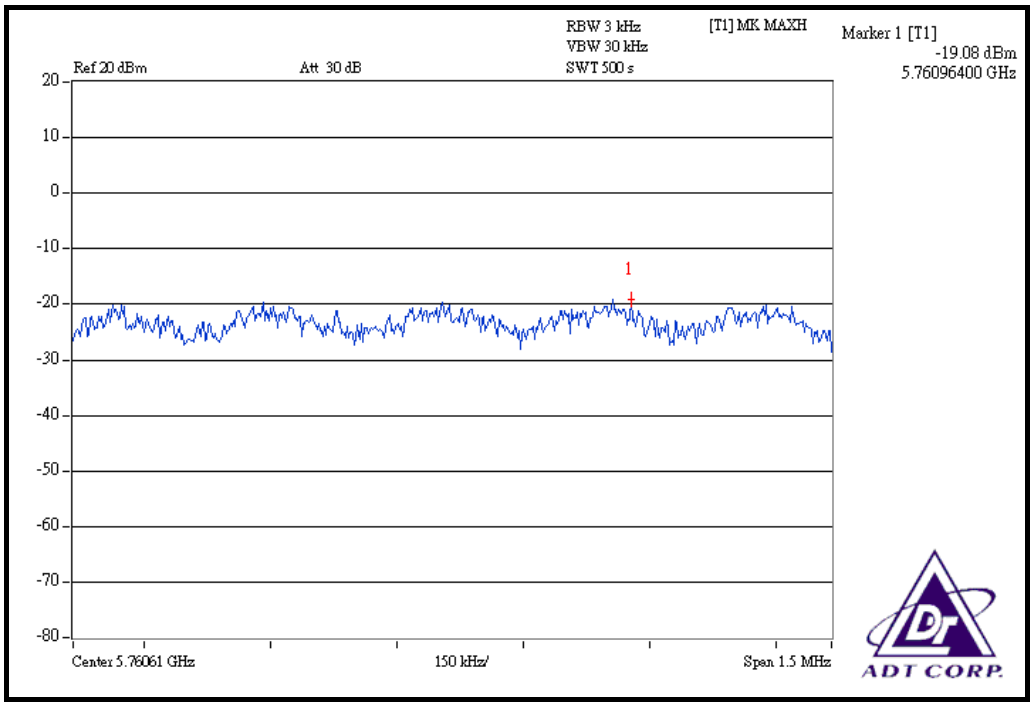

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.60 dBm
5.82496300 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.82496 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION:

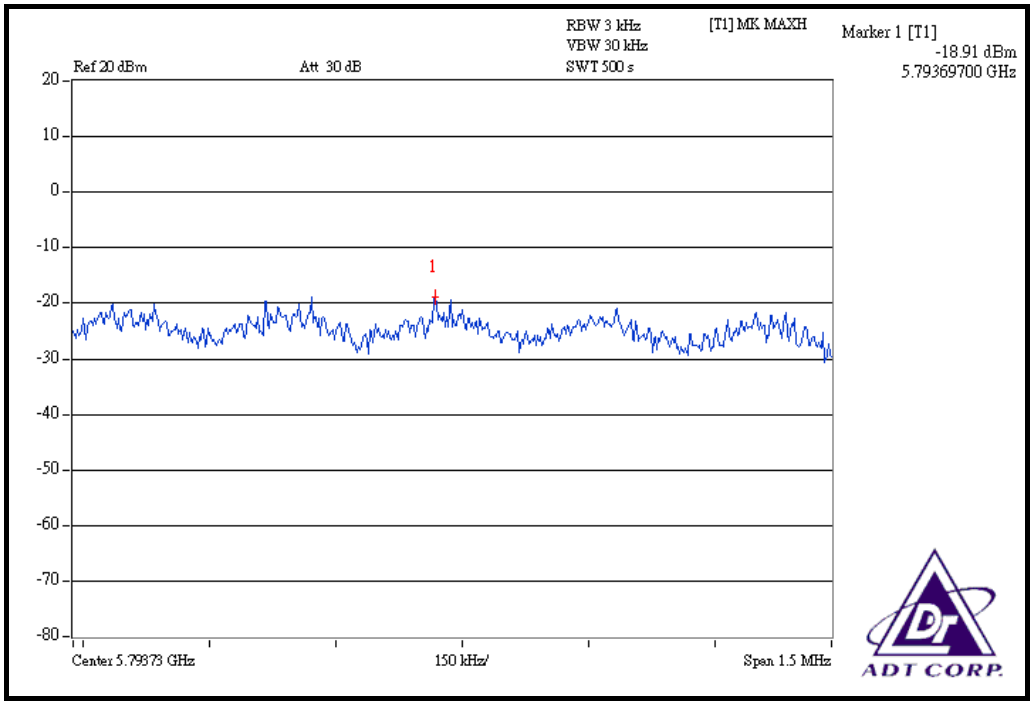
MODULATION TYPE	BPSK	**TRANSFER RATE**	13.5Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 65%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	5755	0.012	0.044	-19.08	-13.55	0.056	-12.52	8	PASS
2	5795	0.013	0.038	-18.91	-14.22	0.051	-12.95	8	PASS

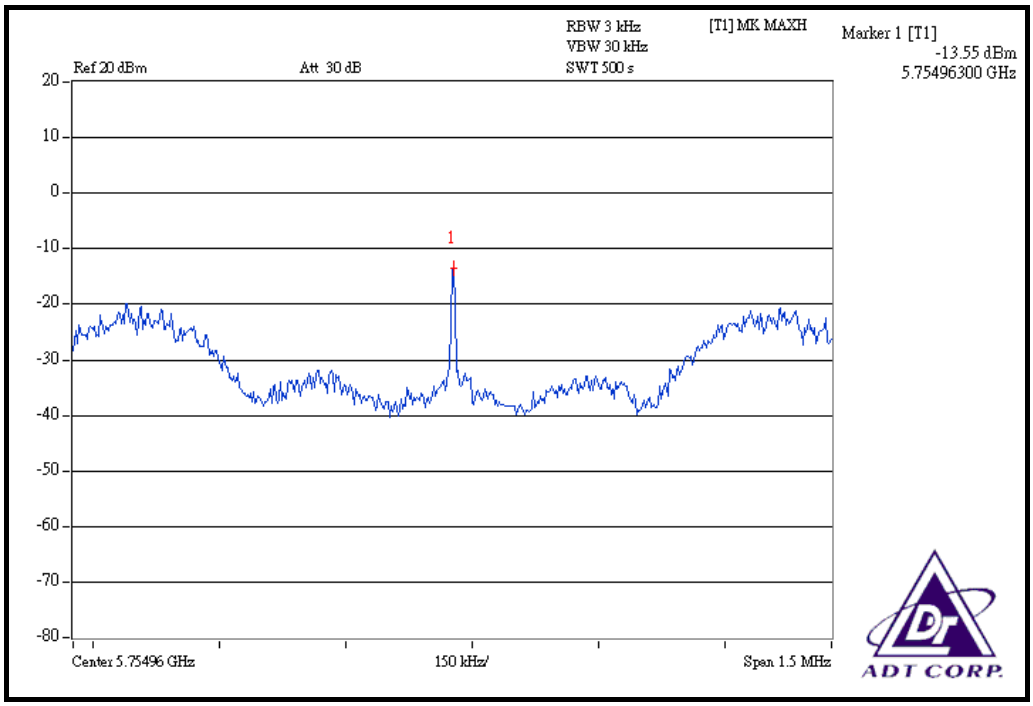
FOR CHAIN 0: CH 1



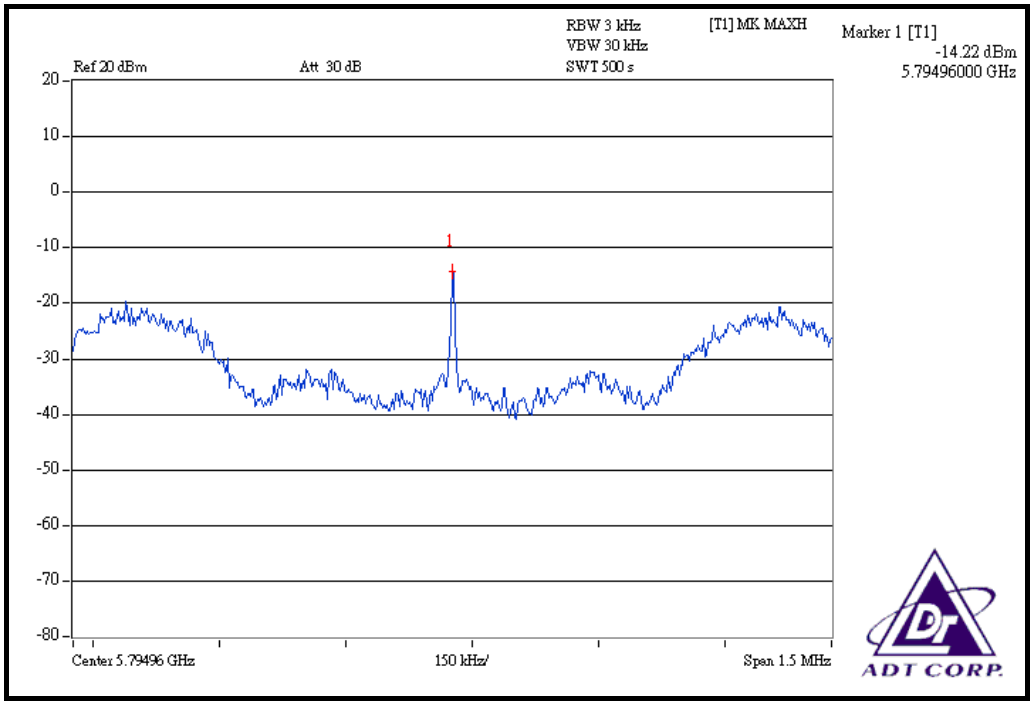
CH 2



FOR CHAIN 0: CH 1



CH 2


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.22 dBm
5.79496000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 5.79496 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

5.6 BAND EDGES MEASUREMENT

5.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

5.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
802.11a:			
R&S SPECTRUM ANALYZER	FSP40	100040	Jun. 28, 2008
DRAFT 802.11n (20MHz), DRAFT 802.11n (40MHz):			
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 01, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 04, 2008
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-405	Dec. 18, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 16, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	230128/4	Nov. 14, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	233233/4	Nov. 14, 2007
Software ADT.	ADT_Radiated_V7.6	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.6.3 TEST PROCEDURE

802.11a:

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

DRAFT 802.11n (20MHz), DRAFT 802.11n (40MHz):

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

5.6.4 DEVIATION FROM TEST STANDARD

No deviation

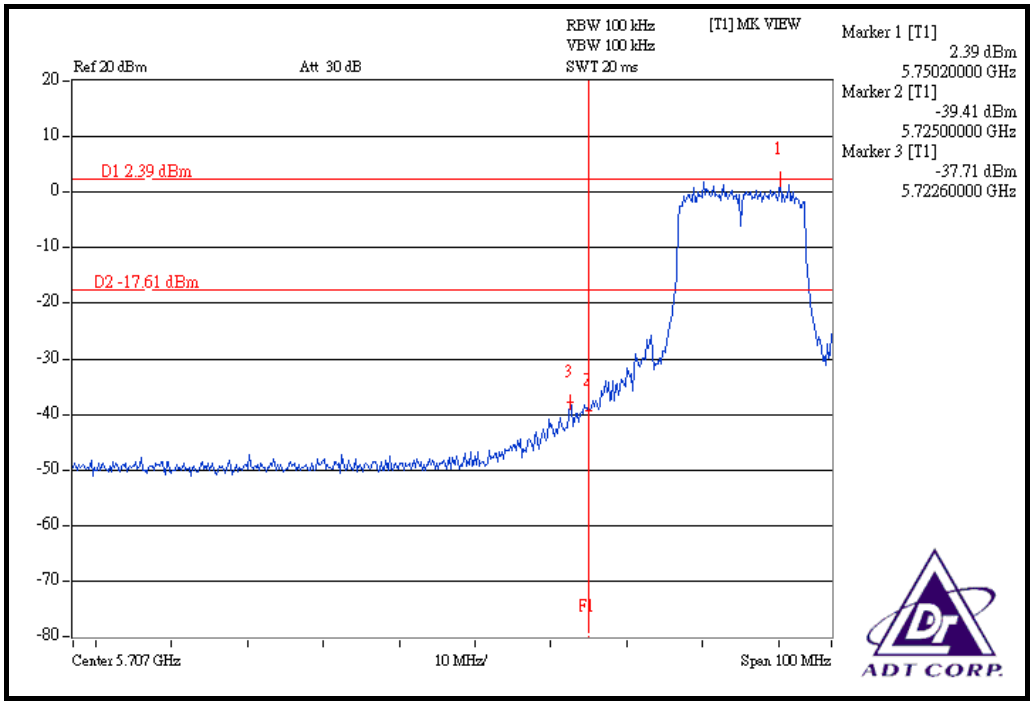
5.6.5 EUT OPERATING CONDITION

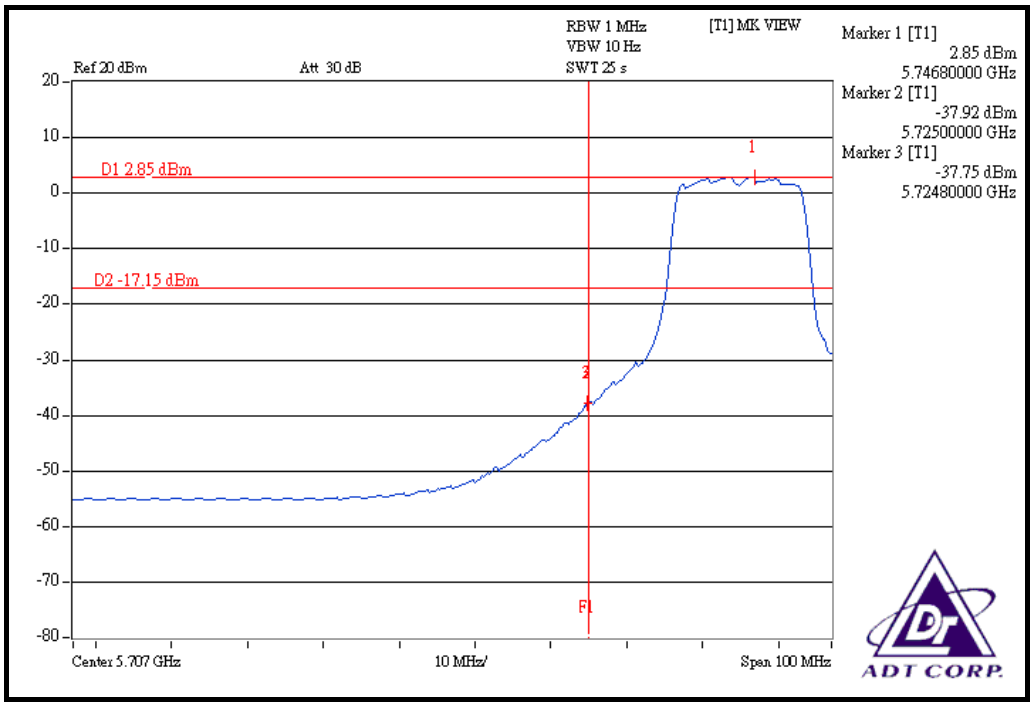
Same as Item 5.3.6

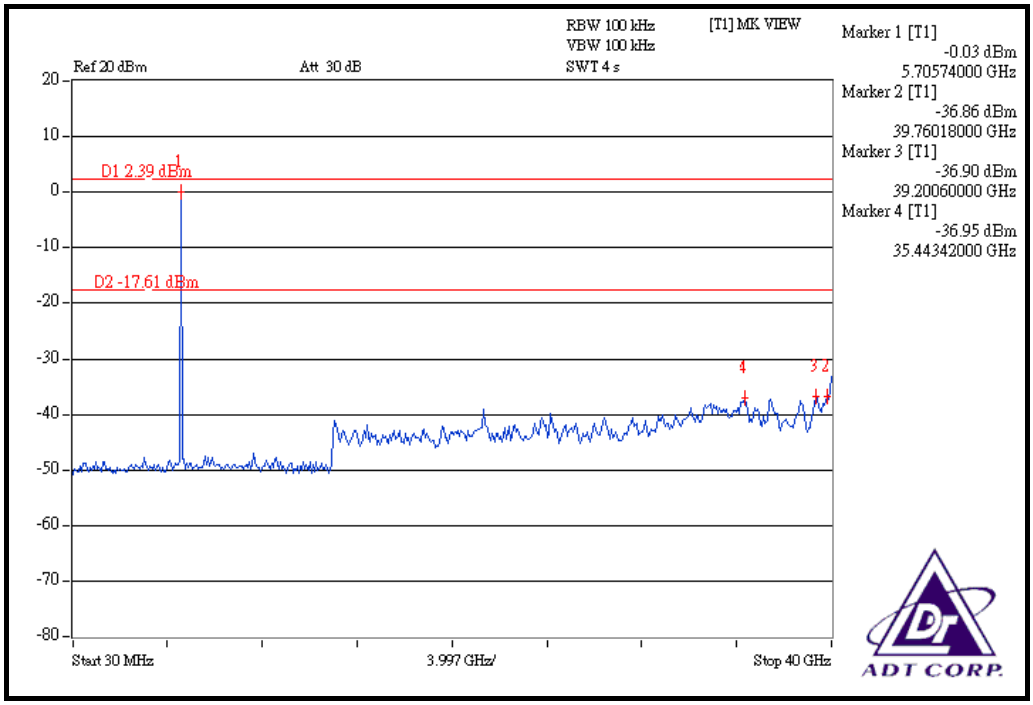
5.6.6 TEST RESULTS

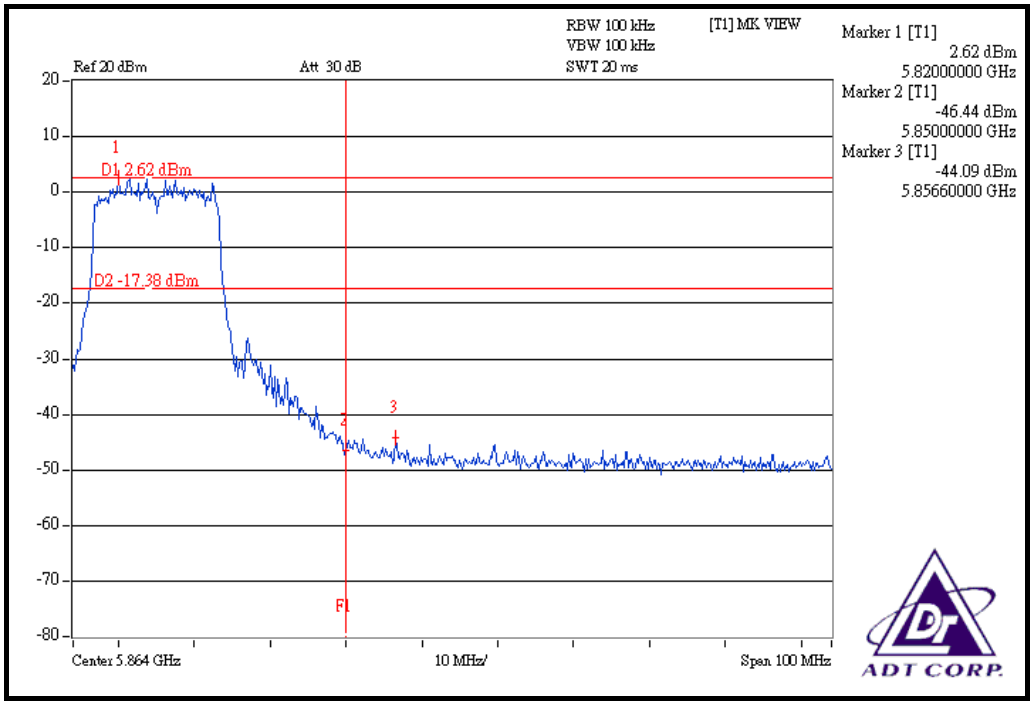
The spectrum plots are attached on the following pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

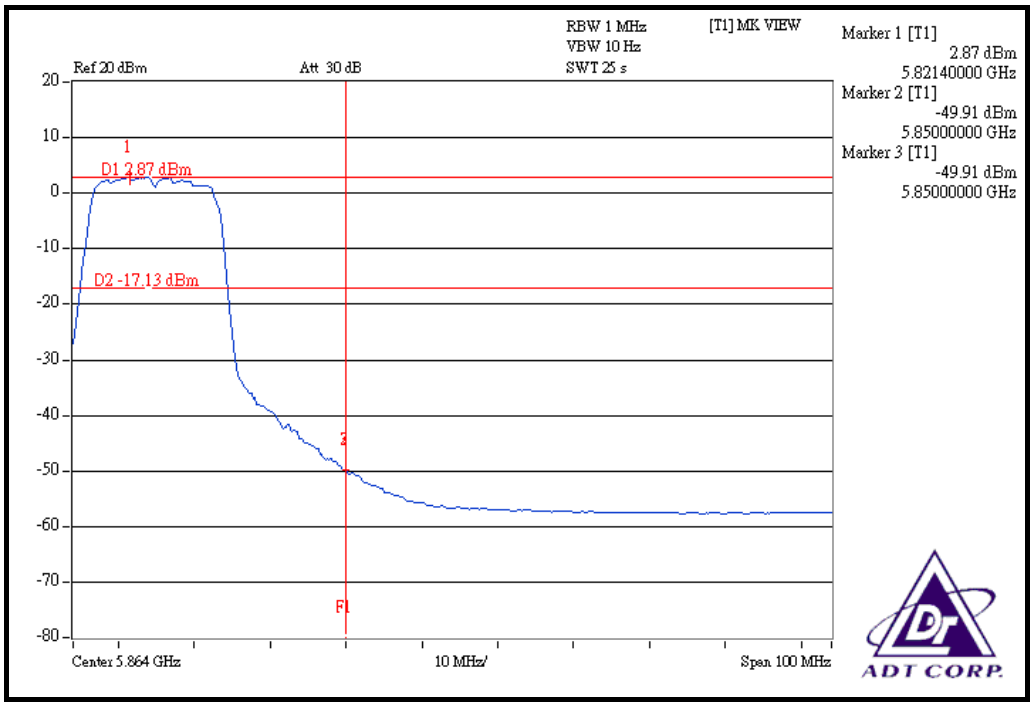
802.11a OFDM MODULATION:

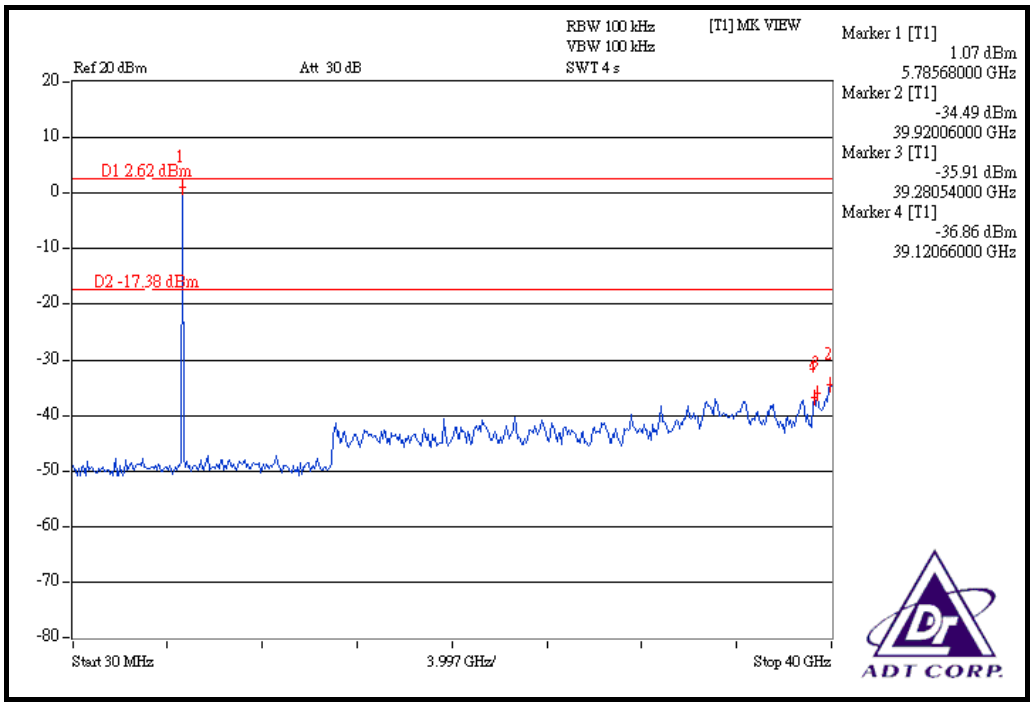




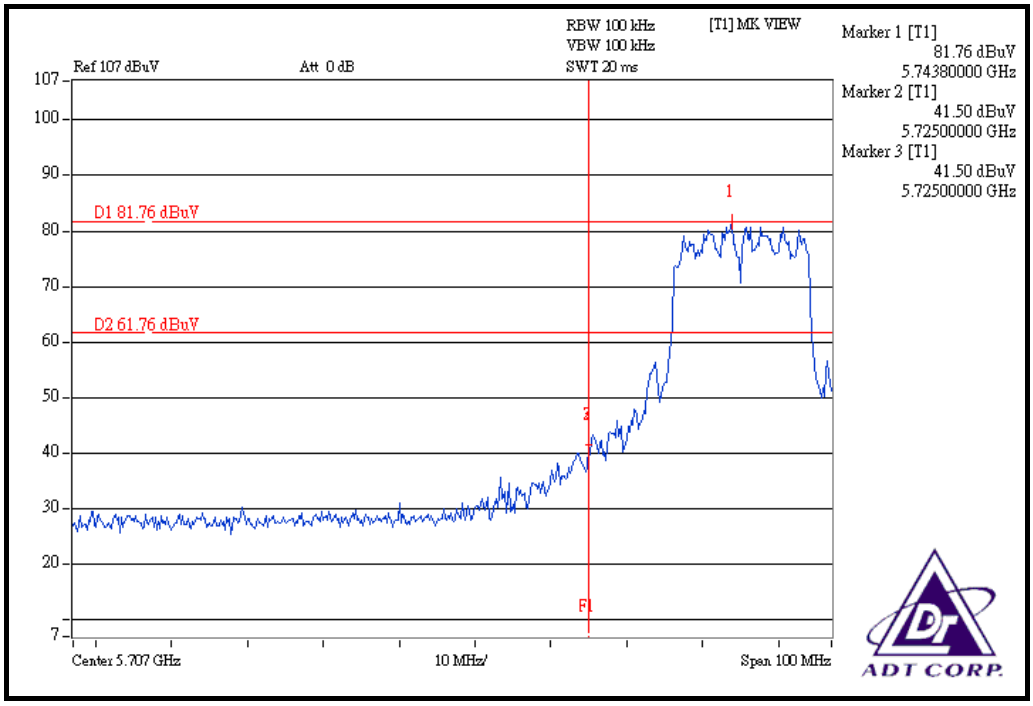

RBW 100 kHz
VBW 100 kHz
SWT 4 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 2.39 dBm
D2 -17.61 dBm
Marker 1 [T1]
-0.03 dBm
5.70574000 GHz
Marker 2 [T1]
-36.86 dBm
39.76018000 GHz
Marker 3 [T1]
-36.90 dBm
39.20060000 GHz
Marker 4 [T1]
-36.95 dBm
35.44342000 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

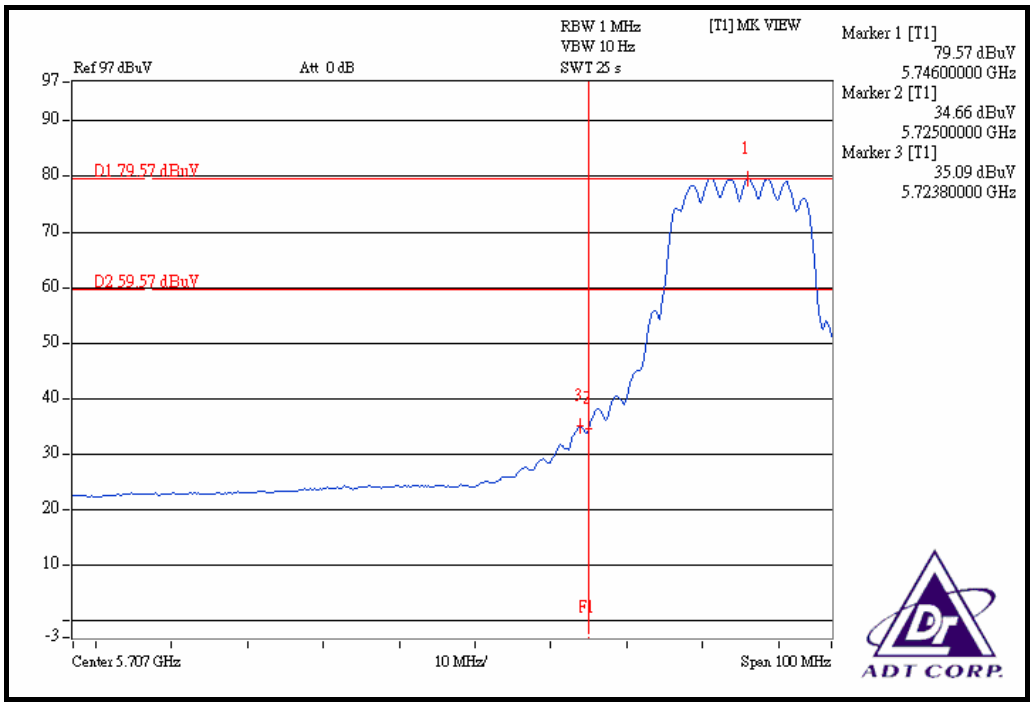

RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 2.62 dBm
D2 -17.38 dBm
Marker 1 [T1]
2.62 dBm
5.82000000 GHz
Marker 2 [T1]
-46.44 dBm
5.85000000 GHz
Marker 3 [T1]
-44.09 dBm
5.85660000 GHz
Center 5.864 GHz
10 MHz/
Span 100 MHz
ADT CORP.

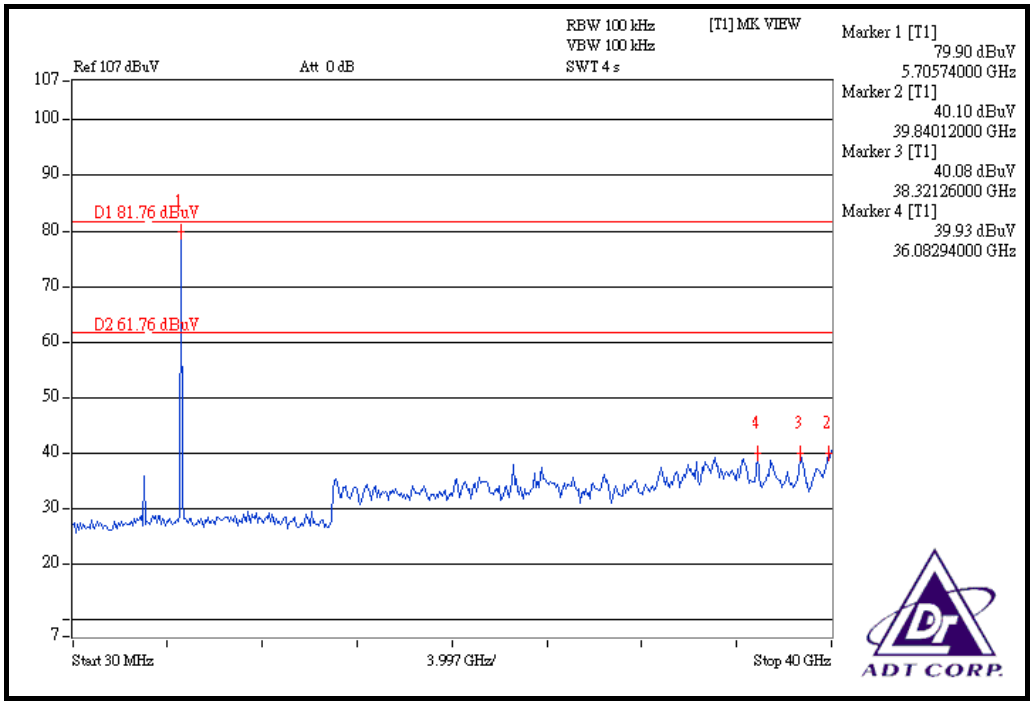

RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 2.87 dBm
D2 -17.13 dBm
Marker 1 [T1]
2.87 dBm
5.82140000 GHz
Marker 2 [T1]
-49.91 dBm
5.85000000 GHz
Marker 3 [T1]
-49.91 dBm
5.85000000 GHz
Center 5.864 GHz
10 MHz/
Span 100 MHz

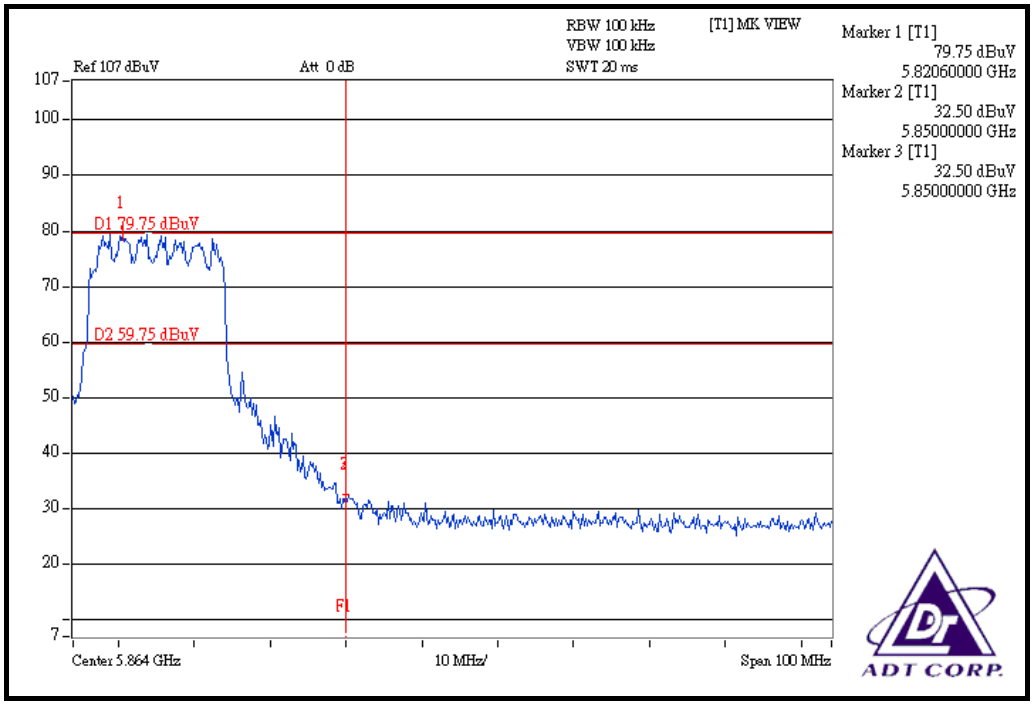

RBW 100 kHz
VBW 100 kHz
SWT 4 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 2.62 dBm
D2 -17.38 dBm
Marker 1 [T1]
1.07 dBm
5.78568000 GHz
Marker 2 [T1]
-34.49 dBm
39.92006000 GHz
Marker 3 [T1]
-35.91 dBm
39.28054000 GHz
Marker 4 [T1]
-36.86 dBm
39.12066000 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz

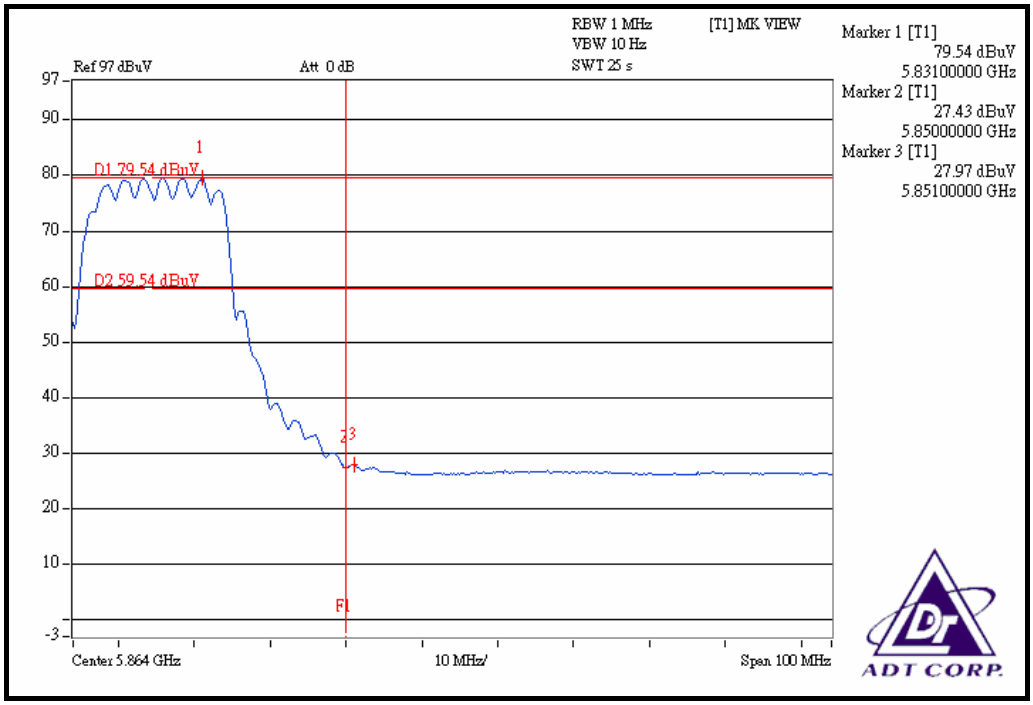
DRAFT 802.11n (20MHz) OFDM MODULATION:

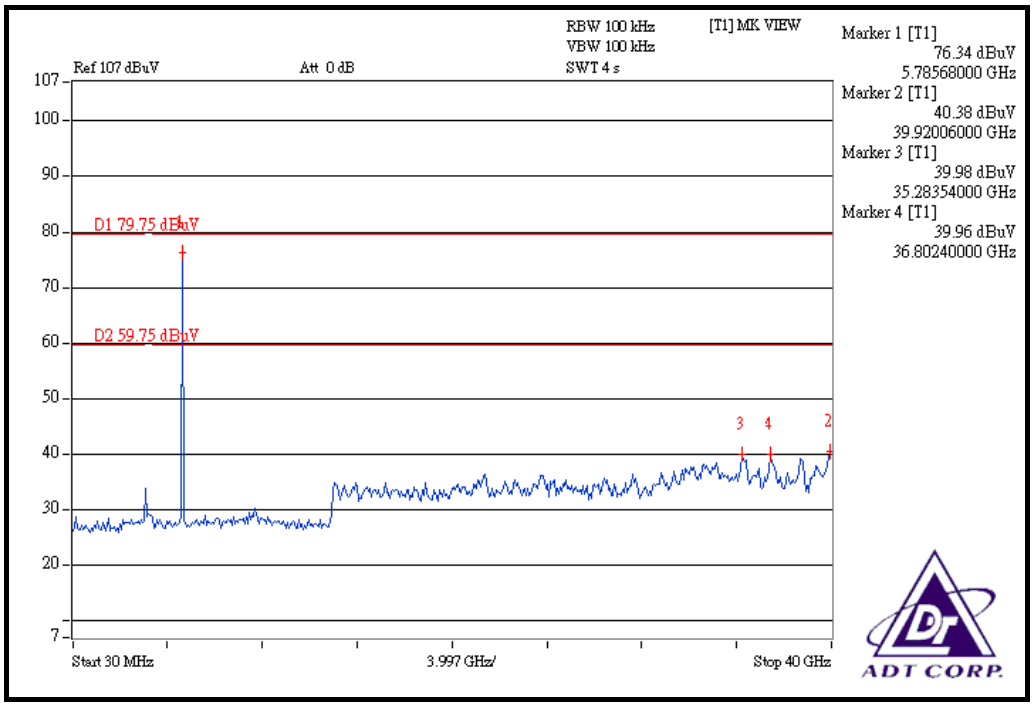




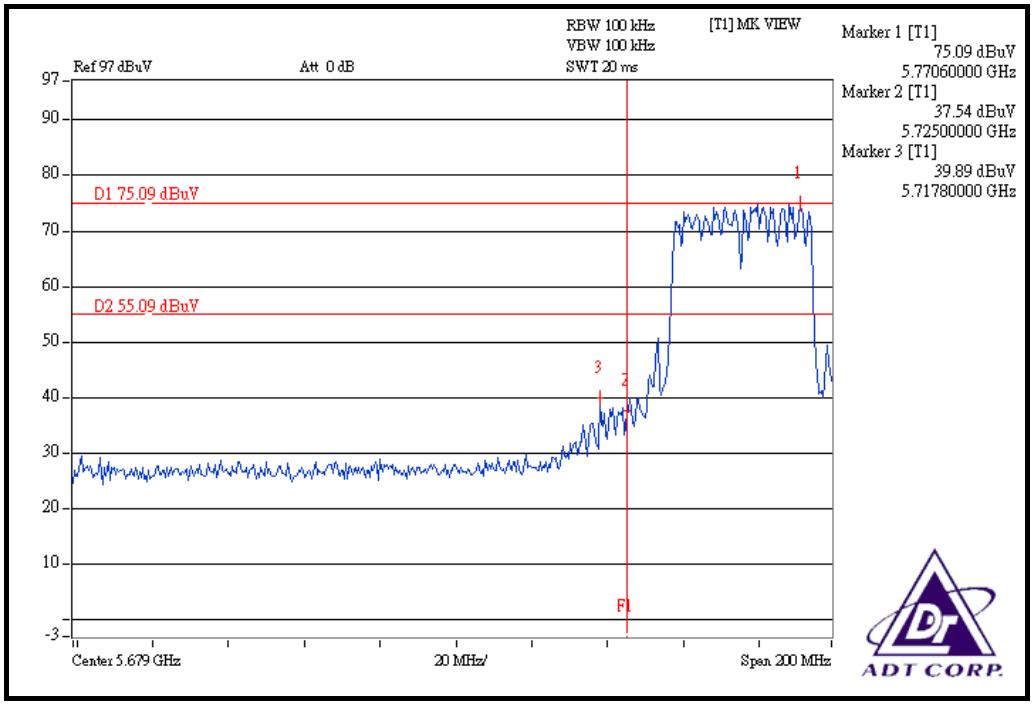

RBW 100 kHz
VBW 100 kHz
SWT 4 s
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
Marker 1 [T1]
79.90 dBuV
5.70574000 GHz
Marker 2 [T1]
40.10 dBuV
39.84012000 GHz
Marker 3 [T1]
40.08 dBuV
38.32126000 GHz
Marker 4 [T1]
39.93 dBuV
36.08294000 GHz
D1 81.76 dBuV
D2 61.76 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

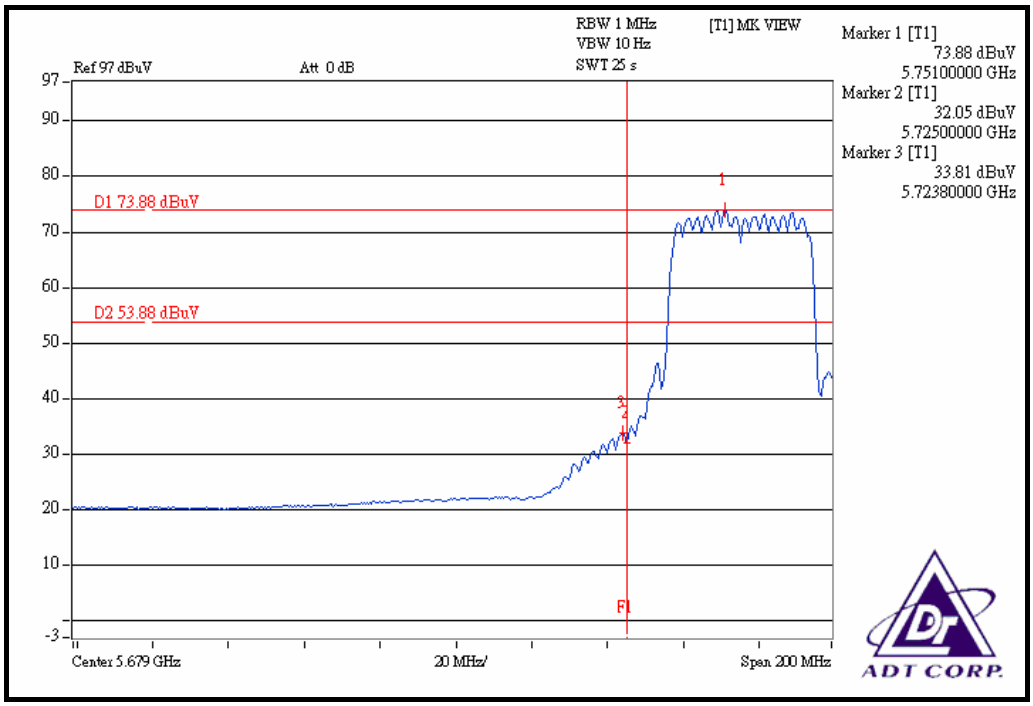

RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
Marker 1 [T1]
79.75 dBuV
5.82060000 GHz
Marker 2 [T1]
32.50 dBuV
5.85000000 GHz
Marker 3 [T1]
32.50 dBuV
5.85000000 GHz
D1 79.75 dBuV
D2 59.75 dBuV
Center 5.864 GHz
10 MHz/
Span 100 MHz

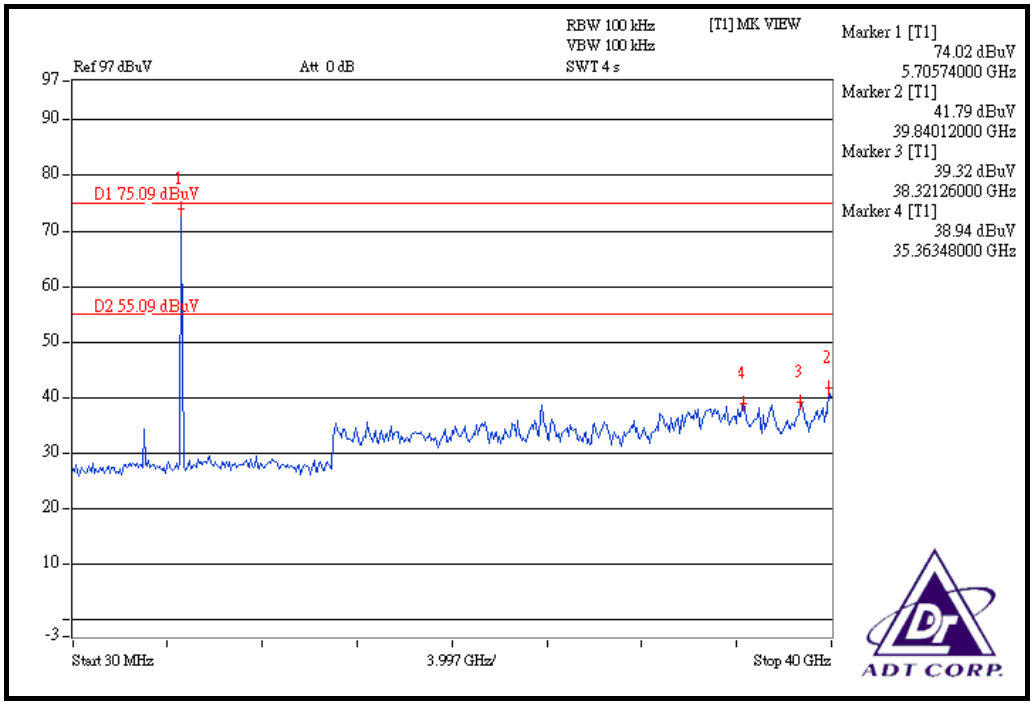

RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.54 dBuV
5.83100000 GHz
Marker 2 [T1]
27.43 dBuV
5.85000000 GHz
Marker 3 [T1]
27.97 dBuV
5.85100000 GHz
D1 79.54 dBuV
D2 59.54 dBuV
Center 5.864 GHz
10 MHz/
Span 100 MHz
ADT CORP.

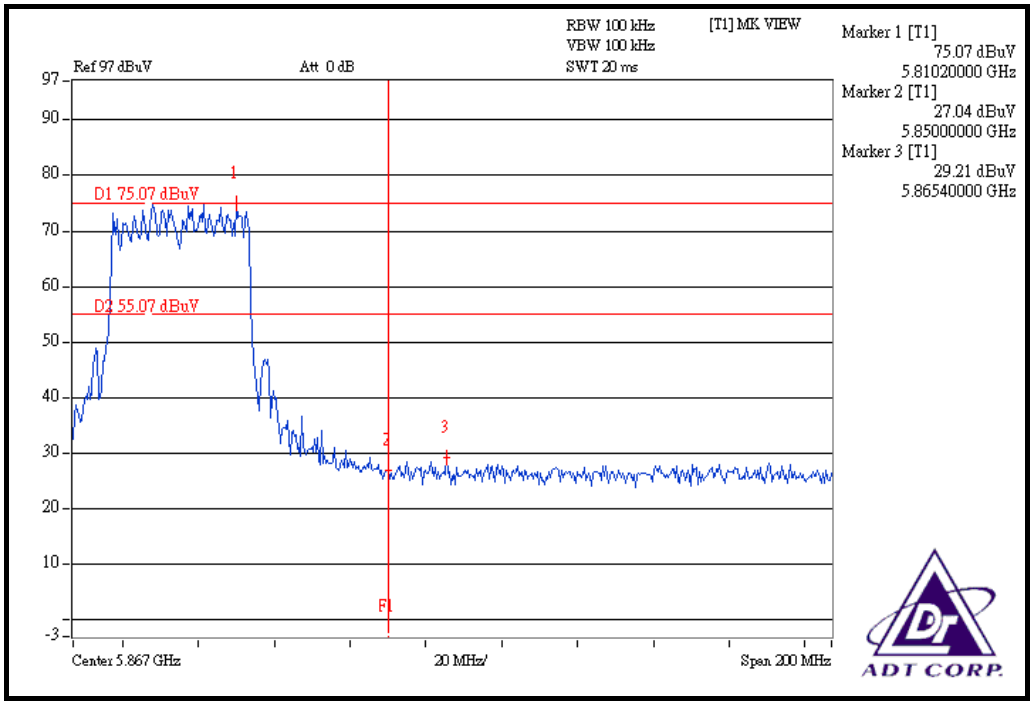

RBW 100 kHz
VBW 100 kHz
SWT 4 s
[T1] MK VIEW
Ref 107 dBuV
Att 0 dB
Marker 1 [T1]
76.34 dBuV
5.78568000 GHz
Marker 2 [T1]
40.38 dBuV
39.92006000 GHz
Marker 3 [T1]
39.98 dBuV
35.28354000 GHz
Marker 4 [T1]
39.96 dBuV
36.80240000 GHz
D1 79.75 dBuV
D2 59.75 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

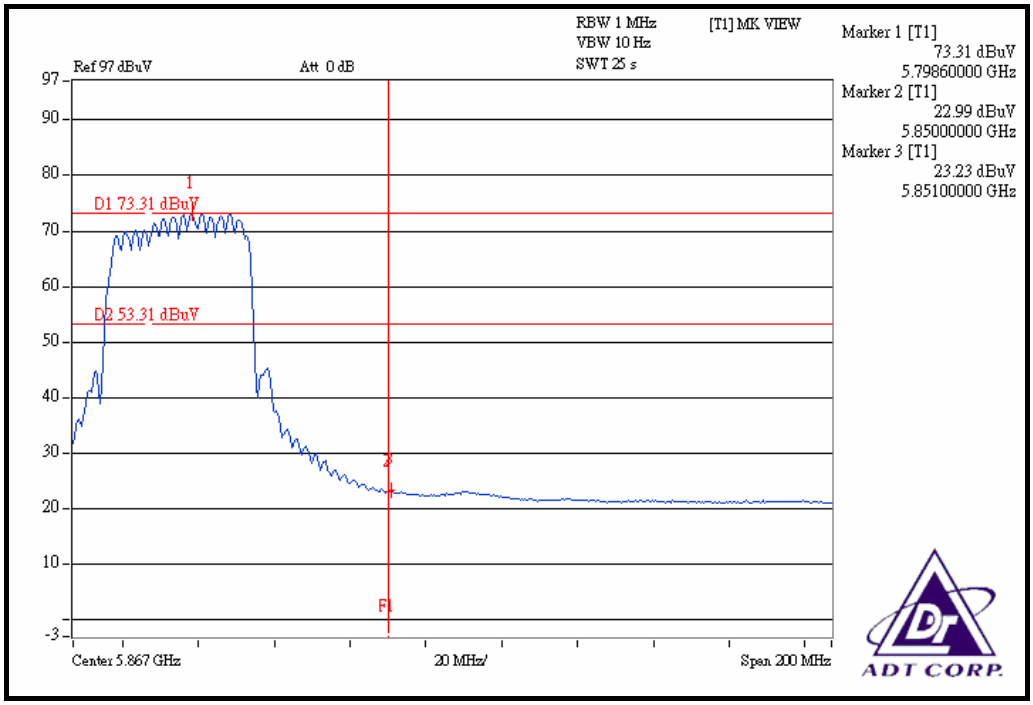
DRAFT 802.11n (40MHz) OFDM MODULATION:

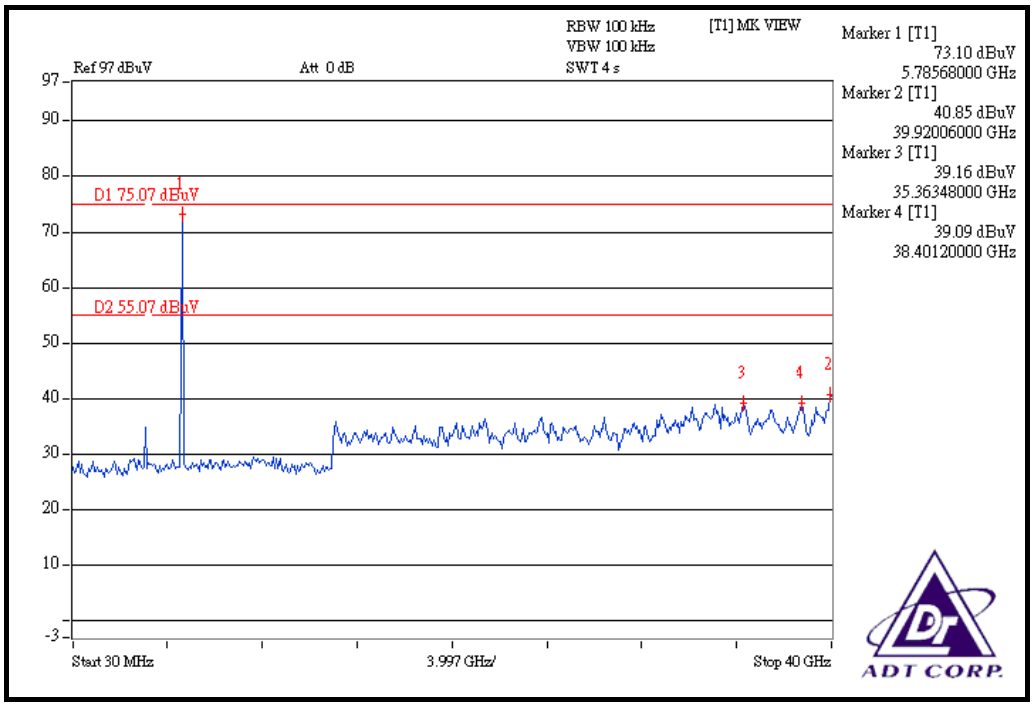





RBW 100 kHz
VBW 100 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.09 dBuV
D2 55.09 dBuV
Marker 1 [T1]
74.02 dBuV
5.70574000 GHz
Marker 2 [T1]
41.79 dBuV
39.84012000 GHz
Marker 3 [T1]
39.32 dBuV
38.32126000 GHz
Marker 4 [T1]
38.94 dBuV
35.36348000 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.07 dBuV
D2 55.07 dBuV
Marker 1 [T1]
75.07 dBuV
5.81020000 GHz
Marker 2 [T1]
27.04 dBuV
5.85000000 GHz
Marker 3 [T1]
29.21 dBuV
5.86540000 GHz
Center 5.867 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Marker 1 [T1]
73.31 dBuV
5.79860000 GHz
Marker 2 [T1]
22.99 dBuV
5.85000000 GHz
Marker 3 [T1]
23.23 dBuV
5.85100000 GHz
Ref 97 dBuV
Att 0 dB
D1 73.31 dBuV
D2 53.31 dBuV
Center 5.867 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 100 kHz
VBW 100 kHz
SWT 4 s
[T1] MK VIEW
Marker 1 [T1]
73.10 dBuV
5.78568000 GHz
Marker 2 [T1]
40.85 dBuV
39.92006000 GHz
Marker 3 [T1]
39.16 dBuV
35.36348000 GHz
Marker 4 [T1]
39.09 dBuV
38.40120000 GHz
Ref 97 dBuV
Att 0 dB
D1 75.07 dBuV
D2 55.07 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

5.7 ANTENNA REQUIREMENT

5.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is PIFA antenna without connector. The maximum Gain of the antenna is 1.2dBi.

6. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

7. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

8. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.